5 Diodes

5-1. Rectifier Diodes

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5-5. Schottky Barrier Diodes

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5-10. High Voltage Rectifier Diodes For Microwave Oven

5-11. GaAs Schottky Barrier Diodes (GSC series)

5-1. Rectifier Diodes

Surface Mount Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F max (V)	V_F Condition I_F (A)	I_R max (μA)	
SFPM-52	200	0.9	30	–40 to +150		1.00	1.0	10	1
-54	400								
SFPM-62	200	1.0	45			0.98			
-64	400								

Axial Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F max (V)	V_F Condition I_F (A)	I_R max (μA)	
AM01Z	200	1.0	35	–40 to +150		0.98	1.0	10	2
01	400								
01A	600								
EM01Z	200	1.0	45	–40 to +150		0.97	1.0	10	3
01	400								
01A	600								
EM 1Y	100	1.0	45	–40 to +150		0.97	1.0	10	4
1Z	200								
1	400								
1A	600								
1B	800		35						
1C	1000								
EM 2	400	1.2	80	–40 to +150		0.92	1.2		
2A	600								
2B	800								
RM 1Z	200	1.0	50	–40 to +150		0.95	1.0	5	5
1	400								
1A	600								
1B	800	0.8	40			1.20			
1C	1000								
RM 11A	600	1.2	100	–40 to +150		0.92	1.5	10	
11B	800								
11C	1000								
RM 10Z	200	1.5	120	–40 to +150		0.91	1.5	10	
10	400	1.2	150						
10A	600								
10B	800								
RM 2Z	200	1.2	100	–40 to +150		0.91	1.5	10	6
2	400								
2A	600								
2B	800								
2C	1000								
RO 2Z	200	1.2	80	–40 to +150		0.92	1.5	10	
2	400								
2A	600								
2B	800								
2C	1000								
RM 3	400	2.5	150	–40 to +150		0.95	2.5	10	7
3A	600								
3B	800								
3C	1000	2.0							

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F max (V)	V_F Condition I_F (A)	I_R max (μA)	
RM 4Y	100	3.0	200	–40 to +150		0.95	3.0	10	8
4Z	200								
4	400								
4A	600								
4B	800		150			0.97			
4C	1000								
4AM	600	3.2	350			0.92	3.5		

Center Tap Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F max per element (V)	V_F Condition IF (A)	I_R max per element (μA)	
FMM-22S,R	200	10.0	100	–40 to +150		1.1	5.0	10	9
-24S,R	400								
-26S,R	600								
FMM-31S,R	100	20.0	120	–40 to +150		1.1	10.0	10	10
-32S,R	200								
-34S,R	400								
-36S,R	600								

Bridge Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F max per element (V)	V_F Condition IF (A)	I_R max per element (μA)	
RBV-401	100	4.0	80	–40 to +150		1.05	2.0	10	11
-402	200								
-404	400					1.10			
-406	600								
-408	800		100			1.00			
-40C	1000								
-406M	600		120			0.92			
-406H	600					1.00			
RBV-601	100	6.0	120	–40 to +150		1.00	3.0	10	12
-602	200								
-604	400		150			1.05			
-606	600								
-608	800		170			0.95			
-606H	600		140			1.05			
RBV-1306	600	13.0	80	–40 to +150		1.20	6.5	10	12
-1506S	600	15.0	150			1.10	7.5		
-1506	600		200			1.05		50	
-2506	600	25.0	350				12.5		

5-2. Fast Recovery Rectifier Diodes

Axial Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (μA) max	trr1 (μs) max	trr2 (μs) max	
RC 2	2000	0.20	20	–40 to +150		2.00	10	4.0	1.30	5
EH 1Z	200	0.60	30	–40 to +150		1.35	10	4.0	1.30	4
1	400									
1A	600									
RH 1Z	200	0.60	35	–40 to +150		1.30	5	4.0	1.30	5
1	400									
1A	600									
1B	800									
1C	1000									
AS01Z	200	0.60	20	–40 to +150		1.50	10	1.5	0.60	2
01	400									
01A	600									
ES01Z	200	0.70	30	–40 to +150		2.50	10	1.5	0.60	3
01	400									
01A	600									
01F	1500	0.50	20			2.00				
ES 1Z	200	0.70	30	–40 to +150		2.50	10	1.5	0.60	4
1	400									
1A	600									
1F	1500	0.50	20			2.00				
RS 1A	600	0.70	30	–40 to +150		2.50	10	1.5	0.60	5
1B	800									
AU01Z	200	0.50	15	–40 to +150		1.70	10	0.4	0.18	2
01	400									
01A	600									
AU02Z	200	0.80	25	–40 to +150		1.30	10	0.4	0.18	
02	400									
02A	600									
RU 1	400	0.25	15	–40 to +150		2.50	10	0.4	0.18	5
1A	600									
1B	800									
1C	1000	0.20				3.00				
EU01Z	200	0.25	15	–40 to +150		2.50	10	0.4	0.18	3
01	400									
01A	600									
EU 1Z	200	0.25	15	–40 to +150		2.50	10	0.4	0.18	4
1	400									
1A	600									
RF 1Z	200	0.60	15	–40 to +150		2.00	10	0.4	0.18	5
1	400									
1A	600									
1B	800									
RU 2Z	200	1.00	20	–40 to +150		1.50	10	0.4	0.18	
2	600									
2B	800									
2C	1000	0.80								
EU02Z	200	1.00	15	–40 to +150		1.40	10	0.4	0.18	3
02	400									
02A	600									
EU 2Z	200	1.00	15	–40 to +150		1.40	10	0.4	0.18	4
2	400									
2A	600									
2YX	100	1.20	25			0.90		0.2	0.08	

● trr1 = I_F/I_{RP} = 1:1, trr2 = I_F/I_{RP} = 1:2

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (μA) max	trr1 (μs) max	trr2 (μs) max	
RU 2M	400	1.10	20	–40 to +150		1.20	10	0.4	0.18	5
2AM	600									
2YX	100	1.50	30			0.95		0.2	0.08	
RU 20A	600	1.50	50			1.10		0.4	0.18	
RU 3	400	1.50	20	–40 to +150		1.50	10	0.4	0.18	6
3A	600									
3B	800	1.10								
3C	1000	1.50				2.00				
3M	400	1.50	50			1.10				
3AM	600									
3YX	100	2.00				0.95		0.2	0.08	
RU 30Y	100	3.50	100	–40 to +150		0.89	10	0.2	0.08	7
30Z	200	2.00	80			0.97		0.4	0.18	
30	400		200			0.95				
30A	600									
RU 4Y	100	3.50	70	–40 to +150		1.30	10	0.4	0.18	8
4Z	200									
4	400	3.00	50			1.50				
4A	600									
4B	800					1.60	50			
4C	1000	2.50								
4M	400	3.50	70			1.30	10			
4AM	600									
4YX	100	4.00	100			0.85		0.2	0.08	

● trr1 = I_F/I_{RP} = 1:1, trr2 = I_F/I_{RP} = 1:2

1-Chip Frame Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (μA) max	trr1 (μs) max	trr2 (μs) max	
FMU-G2YXS	100	10.0	100	–40 to +150		1.00	50	0.2	0.08	13
-G16S	600	5.0	30			1.25		0.4	0.18	
-G26S	600	10.0	40			1.35				

● trr1 = I_F/I_{RP} = 1:1, trr2 = I_F/I_{RP} = 1:2

Center Tap Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (μA) max per element	trr1 (μs) max	trr2 (μs) max	
FMU-12S,R	200	5.0	30	–40 to +150		1.5	50	0.4	0.18	9
-14S,R	400									
-16S,R	600									
FMU-21S,R	100	10.0	40	–40 to +150		1.5	50	0.4	0.18	9
-22S,R	200									
-24S,R	400									
-26S,R	600									
FMU-32S,R	200	20.0	80	–40 to +150		1.5	50	0.4	0.18	10
-34S,R	400									
-36S,R	600									

● trr1 = I_F/I_{RP} = 1:1, trr2 = I_F/I_{RP} = 1:2

5-3. Ultra-Fast Recovery Rectifier Diodes

Surface Mount Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (μA) max per element	trr1 (ns) max	trr2 (ns) max	
SFPL-52	200	0.9	25	–40 to +150		0.98	10	50	35	1
-62		1.0								
SPX-G32S		3.0	50				50	30	25	14
-62S*		6.0	80							

*Center tap

Axial Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (μA) max	trr1 (ns) max	trr2 (ns) max	
AG01Y	70	1.0	25	–40 to +150		1.20	100	100	50	2
01Z	200	0.7	15			1.80				
01	400									
01A	600	0.5								
EG01Y	70	1.0	30	–40 to +150		1.20	100	100	50	3
01Z	200	0.7	15			1.90	50			
01	400					2.00				
01A	600	0.5	10				100			
01C	1000					3.30	50			
EG 1Y	70	1.1	30	–40 to +150		1.20	100	100	50	4
1Z	200	0.8	15			1.70	50			
1	400					1.80				
1A	600	0.6	10			2.00	100			
RG 1C	1000	0.7	10	–40 to +150		3.30	20	100	50	5
RG 10Y	70	1.5	50			1.10	50	100	50	
10	400	1.2				1.80				
10A	600	1.0				2.00				
RG 2Y	70	1.5	50	–40 to +150		1.10	50	100	50	6
2Z	200	1.2				1.50				
2	400					1.80				
2A	600	1.0				2.00				
RG 4Y	70	3.5	100	–40 to +150		1.30	100	100	50	8
4Z	200	3.0	80			1.70				
4	400					1.80	50			
4A	600	2.0	50			2.00				
4C	1000		60			3.00				
EN01Z	200	1.0	50	–40 to +150		0.92	10	100	50	3
RN 1Z		1.5	60				20			5
RN 2Z		2.0	70				50			6
RN 3Z		3.0	80							7
RN 4Z		3.5	120							8
AP01C	1000	0.2	5	–40 to +150		4.00	100	200	80	2
EP01C							5			3
RP 1H	2000	0.1				7.00	20			5
RU 1P	1000	0.4	10			4.00	5	100	50	
AL01Z	200	1.0	25	–40 to +150		0.98	100	50	35	2
EL 1Z		1.5	20							4
EL 1	400		25			1.30				
EL02Z	200	2.0	30			0.98	50	40		3
RL 10Z								50		5
RL 2Z							100			6
2	350		40			1.30	10			
2A	600	1.1	30			1.50	50			7
RL 3Z	200	3.5	80			0.95				
3	350					1.30	100			
3A	600	2.0	60			1.50	50			8
RL 4Z	200	3.5	80			0.95	150			
4A	600	3.0				1.50	50			
RX 3Z	200	3.0	80	–40 to +150		0.98	50	30	25	7

1-Chip Frame Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (μA) max	trr1 (ns) max	trr2 (ns) max	
FMG-G26S	600	4.0	50	–40 to +150		2.50	500	100	50	13
-G36S		8.0	80							15
-G2CS	1000	3.0	30			4.00	50			13
-G3CS		5.0	60			3.50	100	150	70	15
FMP-G12S	200	5.0	65	–40 to +150		1.15	50	150	70	13
FMN-G12S			100			0.92	100	100	50	
FML-G12S	200	5.0	65	–40 to +150		0.98	250	40	35	13
-G13S	300		70			1.30	100	50		
-G14S	400									
-G16S	600		50			1.50				
-G22S	200	10.0	150			0.98	500	40	30	
-G26S	600		100			1.70	100	65	40	
FMX-G12S	200	5.0	65	–40 to +150		0.98	100	30	25	13
-G22S		10.0	150				200			

Center Tap Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (mA) max per element	trr1 (ns) max	trr2 (ns) max	
FMG-12S,R	200	5.0	35	–40 to +150		1.80	0.50	100	50	9
-13S,R	300									
-14S,R	400					2.00				
FMG-22S,R	200	10.0	65	–40 to +150		1.80	0.50	100	50	9
-23S,R	300									
-24S,R	400	8.0				2.00				
-26S,R	600	6.0	50			2.20				
FMG-32S,R	200	20.0	150	–40 to +150		1.80	1.00	100	50	10
-33S,R	300									
-34S,R	400	16.0	100			2.00				
-36S,R	600	15.0	80			2.20				
FMC-26U	600	6.0	50	–40 to +150		2.00	0.50	70	35	9
FML-12S	200	5.0	35	–40 to +150		0.98	0.15	40	30	9
-13S	300		40			1.30	0.05	50	35	
-14S	400									
FML-22S	200	10.0	65	–40 to +150		0.98	0.25	40	30	9
-23S	300		70			1.30	0.10	50	35	
-24S	400									
FML-32S	200	20.0	150	–40 to +150		0.98	0.60	40	30	10
-33S	300		100			1.30	0.20	50	35	
-34S	400									
-36S	600					1.70	0.10	65	35	
FMX-12S	200	5.0	35	–40 to +150		0.98	0.05	30	25	9
-22S		10.0	65				0.10			
-22SL		15.0	100				0.15			
-32S		20.0	150				0.20			10

Bridge Type

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (mA) max per element	trr1 (ns) max	trr2 (ns) max	
RBA-402L	200	4.0	80	–40 to +150		0.98	0.05	40	30	16
RBV-602L	200	6.0	100			1.00	0.25	50	35	12

5-4. Damper Diodes

For TV

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.	Remarks
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (μA) max per element	trr1 (μs) max	trr2 (μs) max		
RH 10F	1500	0.8	60	–40 to +150		1.0	10	4.0	1.30	5	
2D	1300	1.0								6	
2F	1500		50			1.3	50				
3F	1500	2.5								7	
3G	1600										
4F	1500					1.5	10			8	
RS 3FS	1500	2.0				1.1	50	2.0	0.80	7	
4FS		2.5				1.5		1.0	0.40	8	
FMV-G5FS	1500	10.0	50			1.5	50	2.0	0.80	17	
FMR-G5HS	1800					1.6	20	1.8	0.70		
FMV-3FU	1500	5.0	50			1.4	50	4.0	1.30	18	For DM damper
	600					1.3		0.4	0.18		
FMV-3GU	1700	5.0	50			1.5	50	2.0	0.80		
	600					1.3		0.4	0.18		

For CRT Display

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics				Fig. No.	Remarks
	V_{RM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (μA) max per element	trr1 (μs) max	trr2 (μs) max		
RP 3F	1500	2.0	50	–40 to +150		1.7	50	0.70	0.30	7	
RU 4D	1300	1.5				1.8		0.40	0.18	8	
4DS		2.5									
FMP-G2FS	1500	5.0	50	–40 to +150		2.0	50	0.70	0.30	13	
FMQ-G2FLS		10.0				1.8		1.20	0.40		
-G2FS						2.8		0.50	0.20		
FMQ-G5FMS	1500					2.4				17	
-G5GS	1700					2.7	100				
FMP-G5HS	1800	8.0				2.0	25	1.00	0.40		
RG 2A2	1300	0.5	5	–40 to +150		3.5	100	0.10	0.05	6	For compen-sation
RC 3B2	1600	1.0	20			3.6		0.07	0.04	7	
FMP-3FU	1500	5.0	50	–40 to +150		2.0	50	0.70	0.30	18	For DM damper
	600					2.5		0.10	0.05		
FMQ-3GU	1700					2.0	500	0.70	0.30		
	800					4.0	100	0.07	0.04		

5-5. Schottky Barrier Diodes

Surface Mount Type

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F\ (AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) Condition = I_F max per element	I_R (mA) max per element	H·I_R (mA) Ta = 100°C max per element	
SFPA-51	10	1.0	60	–40 to +125		0.34	1.00	30	1
SFPB-52	20		30			0.47	0.25	10	1
SFPB-62		2.0	60				0.50	20	
SFPB-72		3.0					1.00		
SFPA-53	30	1.0	30	–40 to +125		0.36	1.50	70	1
SFPA-63		2.0	40				3.00	140	
SFPA-73		3.0	50				4.50	210	
SFPE-63		2.0	40	–40 to +150		0.55	0.20	20	
SFPJ-53		1.0	30	–40 to +125		0.45	1.00	10(Ta=125°C)	
SFPJ-63		2.0	40				2.00	20(Ta=125°C)	
SFPJ-73		3.0	50				3.00	30(Ta=125°C)	
SPJ-63S*		6.0							14
SSB-14	40	0.5	4	–40 to +125		0.58	0.10	5	19
SFPB-54		1.0	30			0.55	1.00	50	1
SFPB-64		1.5	60						
SFPB-74		2.0				0.50	5.00		
SFPE-64		2.0	40	–40 to +150		0.60	0.20	20	
SPB-G34S		3.0	50	–40 to +125		0.55	30.00	50	14
SPB-G54S		5.0	60				50.00		
SPB-64S*		6.0	50				30.00		14
MPE-24H*		15.0	100	–40 to +150		0.60	0.75	50(Ta=150°C)	20
SFPB-56	60	0.7	10	–40 to +125		0.62	1.00	7.5	1
SFPB-66		1.5	25					15	
SFPB-76		2.0	40				2.00	20	
SPB-G56S		5.0	60			0.70	35.00	50	14
SFPB-59	90	0.7	10			0.81	1.00	5	1
SFPB-69		1.5	40				2.00	10	

*Center tap

Axial Type

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F\ (AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (mA) max	H·I_R (mA) Ta = 100°C max	
RK 42	20	3.0	100	–40 to +125		0.47	1.00	20	8
AK 03	30	1.0	25	–40 to +125		0.55	1.00	50(Tj=100°C)	2
EA 03			30			0.36	1.50	70	3
EK 03			40			0.55	5.00	50	
EK 13		1.5							4
RA 13		2.0				0.36	3.00	140	5
RK 13		1.7	60			0.55	5.00	50	
RK 33		2.5	50						6
RJ 43		3.0				0.45	3.00	30(Tj=125°C)	8
RK 43			80			0.55	5.00	50	
AK 04	40	1.0	25	–40 to +125		0.55	1.00	50(Tj=100°C)	2
EK 04			40				5.00	50	3
EK 14		1.5							4
RK 14		1.7	60						5
RK 34		2.5	50						6
RK 44		3.0	80						8
AK 06	60	0.7	10	–40 to +125		0.62	1.00	7.5	2
EK 06									3
EK 16		1.5	25					15	4
RK 16									5
RK 36		2.0	40				2.00	25	6
RK 46		3.5	70				3.00	35	8

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F\ (AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (mA) max	H·I_R (mA) Ta = 100°C max	
AK 09	90	0.7	10	–40 to +125		0.81	1.00	5	2
EK 09									3
EK 19		1.5	40				2.00	10	4
RK 19									5
RK 39		2.0	50				3.00	15	6
RK 49		3.5	60				5.00	30	8

1-Chip Frame Type

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F\ (AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max	I_R (mA) max	H·I_R (mA) Ta = 100°C max	
FMB-G12L	20	5.0	100	–40 to +125		0.47	2.00	35	13
FMB-G22H		10.0	200				5.00	65	
FMB-G14	40	3.0	60			0.55	5.00	100	
FMB-G14L		5.0							
FMB-G24H		10.0	150				10.00	65	
FMB-G16L	60	6.0	50			0.62	5.00	50	
FMB-G19L	90	4.0	60			0.81	5.00	35	

Center Tap Type

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F\ (AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (mA) max per element	H·I_R (mA) Ta = 100°C max per element	
FMB-22L	20	10.0	100	–40 to +125		0.47	2.00	35	9
FMB-22H		15.0	150				3.00	50	
FMB-32		20.0	200				5.00	65	10
FMB-32M		30.0	300				10.00	100	
FME-24L	40	10.0	80	–40 to +150		0.60	0.50	30	9
FME-24H		15.0	100				0.75	50	
FMB-24		4.0	50	–40 to +125		0.55	5.00	35	
FMB-24M		6.0	60						
FMB-24L		10.0	60						
FMB-24H		15.0	100				7.50	50	
FMB-34S		12.0	75			0.58	5.00	35	10
FMB-34		15.0	150			0.55	10.00	65	
FMB-34M		30.0	300				20.00	100	
CTB-24		4.0	60				5.00	50	21
CTB-24L		10.0						35	
CTB-34		15.0	150				10.00	65	22
CTB-34M		30.0	300				20.00	100	
FMB-26	60	4.0	40	–40 to +125		0.62	1.00	25	9
FMB-26L		10.0	50				2.50	50	
FMB-36		15.0	100				5.00	75	10
FMB-36M		30.0	150				10.00	150	
FMB-29	90	4.0	50	–40 to +125		0.81	3.00	15	9
FMB-29L		8.0	60				5.00	35	
FMB-39		15.0					10.00	50	10
FMB-39M		20.0	150				15.00	60	

Bridge Type

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	V_{RM} (V)	$I_{F\ (AV)}$ (A)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_F (V) max per element	I_R (mA) max per element	H·I_R (mA) Ta = 100°C max per element	
RBA-404B	40	4.0	40	–40 to +125		0.55	2.0	20	16
-1004B		10.0	60				5.0	35 (Tj=125°C)	
-406B	60	4.0	40			0.62	2.0	20	

5-6. Avalanche Diodes

(Ta = 25°C)

Type No.	Absolute Maximum Ratings				Electrical Characteristics			Fig. No.
	V_{RM} (V)	I_{ZSM} (A) Instantaneous	Tj (°C)	Tstg (°C)	V_Z (V) 1mA Instantaneous	I_R (μA) max	$I_{R(H)}$ (μA) max	
RM 25	40	3.0	–40 to +130		50 to 61.5	5	20	5
RM 26	50				60 to 70.0			
R 2M	130	1.0	–40 to +150		135 to 180.0	10	50	
RY 23	200	0.1	–40 to +130		250 to 400.0	10	50	
RY 24	400				400 to 450.0			

With Built-in Thyristor

(Ta = 25°C)

Type No.	Absolute Maximum Ratings				Electrical Characteristics			Fig. No.
	V_{RDC} (–10°C) (V)	I_{TSM} (A) 50Hz Half-cycle Sinewave Single Shot	Tj (°C)	Tstg (°C)	V_Z (V) 1mA Instantaneous	I_R (μA) max	H·I_R (μA) max	
RZ1030	20	30	–10 to +125	–40 to +150	27 to 33	10	50	5
1040	28				34 to 40			
1055 *	40				50 to 60			
1065 *	50				60 to 70			
1100 *	80				90 to 110			
1125	105				115 to 135			
1150	125				140 to 160			
1175	150				165 to 185			
1200	180				195 to 215			
1225 *	190				210 to 240			
1250	180				235 to 265			
EZ0150	125				140 to 160			3

* Under development

5-7. Power Zener Diodes

(Ta = 25°C)

Type No.	Absolute Maximum Ratings					Electrical Characteristics			Fig. No.
	P_R (W)	V_{DC} (V)	I_{ZSM} (A) Instantaneous	Tj (°C)	Tstg (°C)	V_Z (V) 1mA Instantaneous	I_R (μA) max	I_R (H) (mA) max	
PZ 127	150	20	4	–40 to +150		27±5.0	50	1.0	5
227	300		8						6
427	450		9						8
628	1500		65						23
SFPZ-68	50	20	2			28±3.0	10	1.0	1
SPZ-G36	450	30	11			36±3.6	5	0.1	14

5-8. Silicon Varistors

Type No.	Absolute Maximum Ratings (Ta = 25°C)				Electrical Characteristics (Ta = 25°C)								Fig. No.
	I_F (mA)	I_{FSM} (A)	Tj (°C)	Tstg (°C)	V_{F1} (V)	I_{F1} (mA)	V_{F2} (V)	I_{F2} (mA)	V_{F3} (V)	I_{F3} (mA)	I_F (μA) max	V_F (V)	
VR-60SS	400	15.0	–40 to +100		1.5 max	1000	–	–	–	–	20	0.2	24
-61SS	150	7.5			2.30 ±0.25	1	2.75 ±0.25	10	3.1 ±0.25	70	–	–	
SV-2SS	150	–	–40 to +100		4.0 max	100	–	–	–	–	50	1.2	
-3SS	250	–			2.0 max						50	0.6	
-4SS	150	–			1.80 ±0.20	1	2.15 ±0.20	10	2.4 ±0.25	30	50	0.9	
SV 02YS	200	30.0	–40 to +130		1.20 ±0.20	1	1.50 ±0.25	70	–	–	10 (I_R)	100 (V_R)	3
03YS	150	16.0			1.80 ±0.20		2.30 ±0.25						
04YS	100	12.0			2.35 ±0.25		3.00 ±0.30						
05YS	80	10.0			3.00 ±0.30		3.80 ±0.40						
06YS	70	8.0			3.50 ±0.35		4.50 ±0.45						

5-9. High Voltage Rectifier Diodes

(Ta = 25°C)

Type No.	Absolute Maximum Ratings						Electrical Characteristics				Fig. No.
	V_{RM} (kV)	$I_{F(AV)}$ (mA) *	I_{FSM} (A)	Tc (°C)	Tj (°C)	Tstg (°C)	V_F (V) max	V_F Condition IF (mA)	I_R (μA) max	trr (μs) max	
SHV-02	2	2.0	0.3	100	–40 to +120		16	10	1.0	0.18	25
SHV-03S	3						16				26
SHV-03	3		0.5				16				
-10	10						40				27
-12	12						45				
-14	14						55				
-16	16						60				28
-20	20						75				
-24	24						75				
SHV-06EN	6	2.0	0.5	100	–40 to +120		26	10	1.0	0.15	29
-08EN	8						32				
-10EN	10						42				30
-12EN	12						48				
SHV-08DN	8						30			0.15	29
-10DN	10						38				30
-12DN	12						45				

* Load C for FBT high voltage current

5-10. High Voltage Rectifier Diodes for Microwave Oven

(Ta = 25°C)

Type No.	Absolute Maximum Ratings				Electrical Characteristics				Fig. No.
	V_{RM} (kV)	$I_{F(AV)}$ (mA)	I_{FSM} (A)	Tstg (°C)	V_F (V) max	V_F Condition IF (mA)	I_R (μA) max	trr (μs) max	
HVR-1X-40B	9	350	20	–40 to +130	9.0	350	10	–	31
UX-C2B	8	350	15	–30 to +130	13.5	350	10	0.10	32

5-11. GaAs Schottky Barrier Diodes (GSC series)

(Ta = 25°C)

Type No.	Absolute Maximum Ratings						Electrical Characteristics							Fig. No.
	V_{RM} (V)	$I_{F(AV)}$ (A) Rectangular Wave duty =1/2 average	Tc (°C)	I_{FSM}* (A) 50Hz Half-cycle Sinewave Peak Value	I^2t* (A^2s) 50Hz Half-cycle Sinewave Single Shot	Tj (°C)	Tstg (°C)	V_F* (V)	I_F (A)	I_R* (mA) $V_R = V_{RM}$ max	$I_{R(H)}$* (mA) $V_R = V_{RM}$, max Tj = 150°C	t_{rr}* (ns) dIf/dt = 100A/μs	I_F (A)	Ct* (pF) $V_R = 0^V$ f_M =1 MHz	R_{thj-c} (°C/W)	
GSC215	150	5	114	20	2.0	–40 to +150		0.90	2.5	1.0	10	7	2	150	5.0	21
GSC218	180										15					
GSC315	150	14	80	50	18.0			0.90	7.0	3.0	30	10	6	450	3.5	22
GSC318	180										45					
GSF18R	180	7		35											7.0	9

* per element

External Dimensions (unit: mm)

Fig. 1

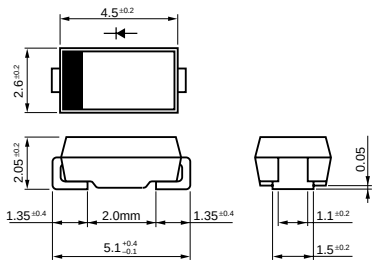


Fig. 2

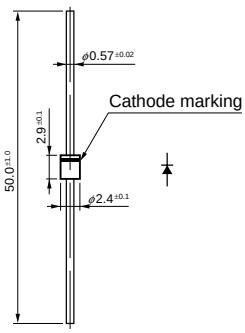


Fig. 3

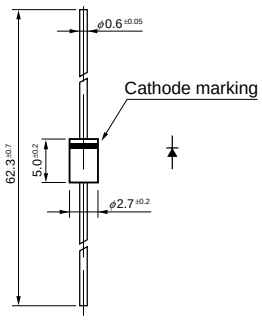


Fig. 4

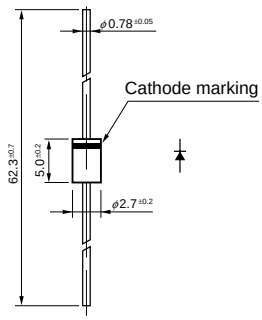


Fig. 5

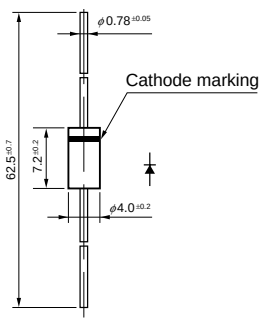


Fig. 6

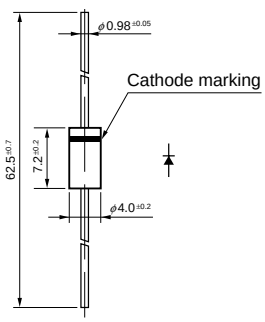


Fig. 7

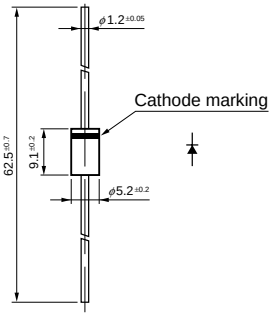


Fig. 8

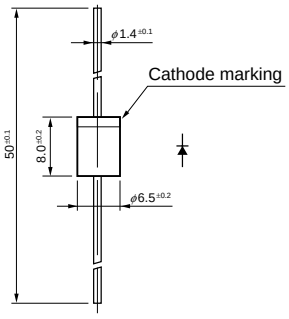
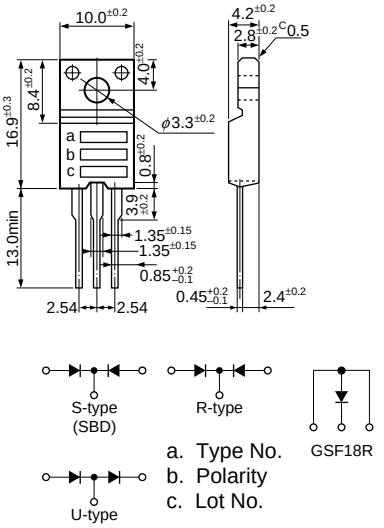
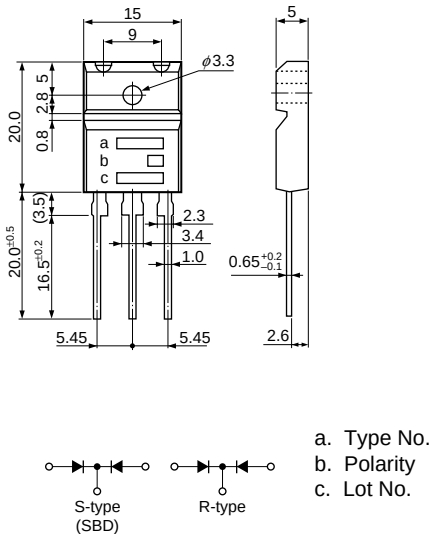


Fig. 9



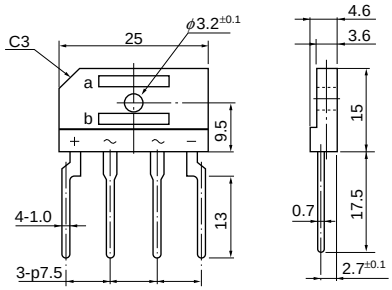
a. Type No.
b. Polarity
c. Lot No.

Fig. 10



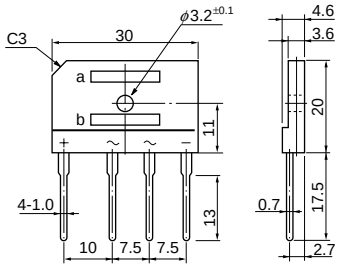
a. Type No.
b. Polarity
c. Lot No.

Fig. 11



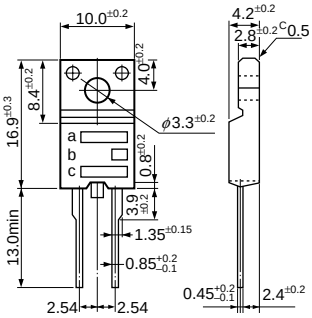
a. Type No.
b. Lot No.

Fig. 12



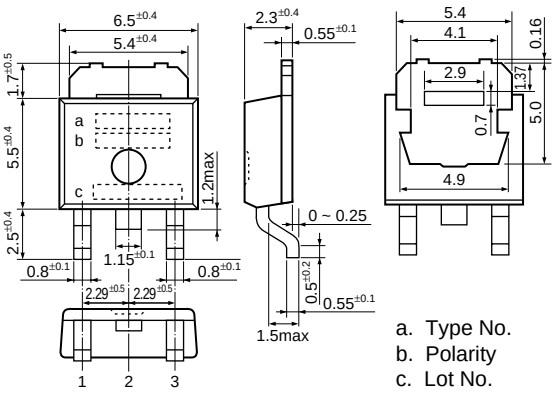
a. Type No.
b. Lot No.

Fig. 13 Full-Mold



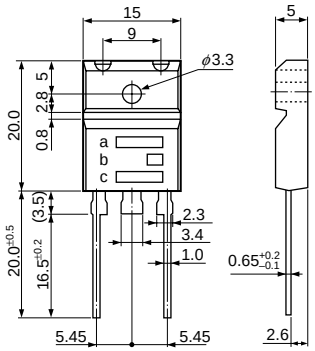
a. Type No.
b. Polarity
c. Lot No.

Fig. 14



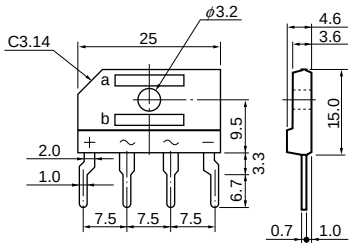
a. Type No.
b. Polarity
c. Lot No.

Fig. 15 Full-Mold



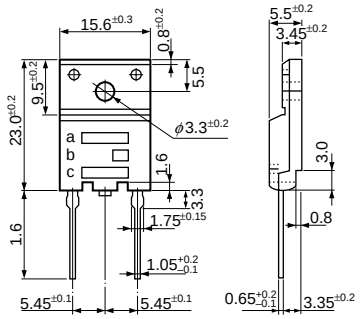
a. Type No.
b. Polarity
c. Lot No.

Fig. 16



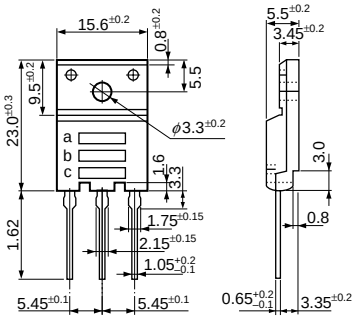
a. Type No.
b. Lot No.

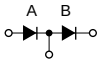
Fig. 17 Full-Mold



a. Type No.
b. Polarity
c. Lot No.

Fig. 18 Full-Mold





a. Type No.
b. Polarity
c. Lot No.

Fig. 19 SSB-14

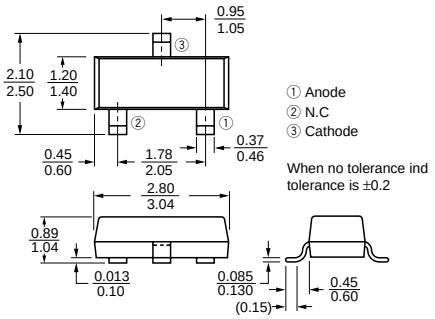


Fig. 20 MPE-24H

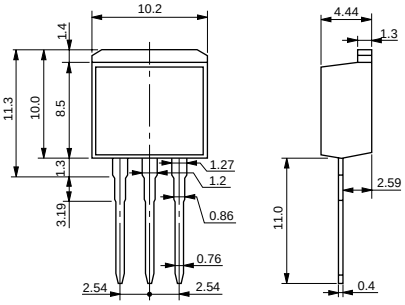
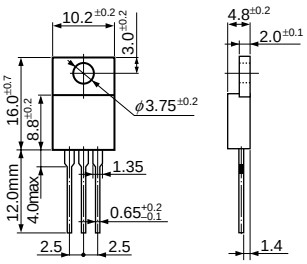
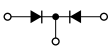


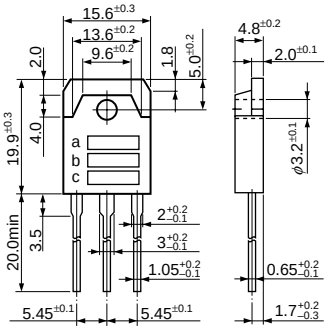
Fig. 21 MT-25 (TO-220)

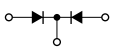




a. Type No.
b. Polarity
c. Lot No.

Fig. 22 MT-100 (TO-3P)





a. Type No.
b. Polarity
c. Lot No.

Fig. 23

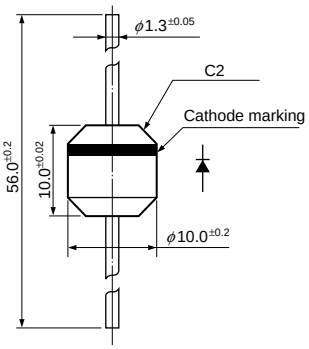


Fig. 24

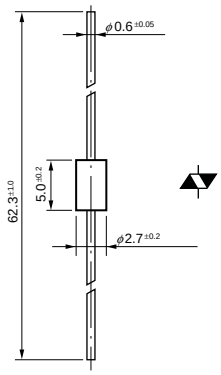


Fig. 25

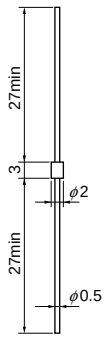


Fig. 26

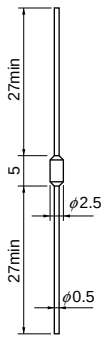


Fig. 27

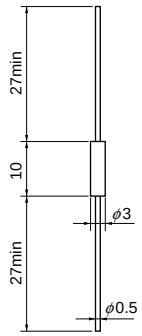


Fig. 28

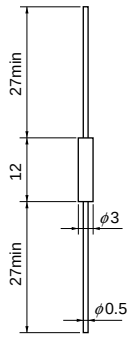


Fig. 29

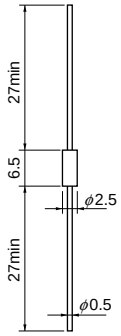


Fig. 30

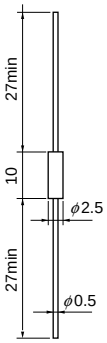


Fig. 31

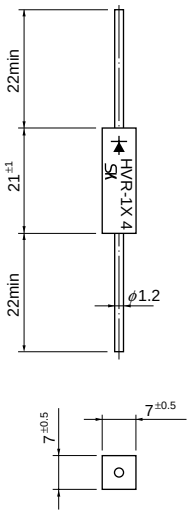
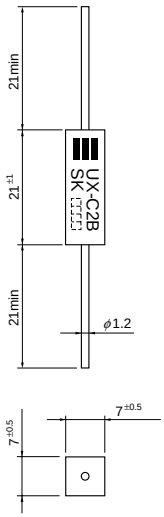



Fig. 32