



MUR1040DS

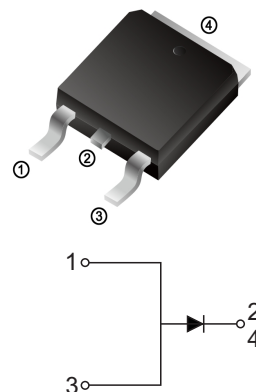
Superfast Recovery Rectifiers

FEATURES

- Low profile package
- Fast reverse recovery time
- Easy to pick and place
- Low forward Voltage drop
- High temperature soldering : 260°C/10 seconds at terminals
- Lead free in comply with EU ROHS 2011/65/EU directives



TO-252(D-PAK)



Mechanical Data

- **Case** : TO-252
- **Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity** : Cathode line denotes the cathode end
- **Mounting Position** : Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load. For capacitive load, derate current by 20%

CHARACTERISTICS	TO-252	MUR1040DS	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	400	V
Maximum RMS Bridge Input Voltage	VRMS	280	V
Maximum DC Blocking Voltage	VDC	400	V
Maximum Average Forward Rectified Current	I(AV)	10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	170	A
Maximum Forward Voltage at 10A	VF	1.15	V
Maximum DC Reverse Current TA=25°C	IR	1.0	μA
at Rated DC Blocking Voltage TA=125°C		100	μA
Maximum Reverse Recovery Time (Note1)	TRR	35	ns
Typical Thermal Resistance	RθJA	50	°C/W
Operating Temperature Range	TJ	-55 to +150	°C
Storage Temperature Range	TSTG	-55 to +150	°C

NOTES: 1.Measured with IF = 0.5 A, IR = 1 A, Irr= 0.25 A



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

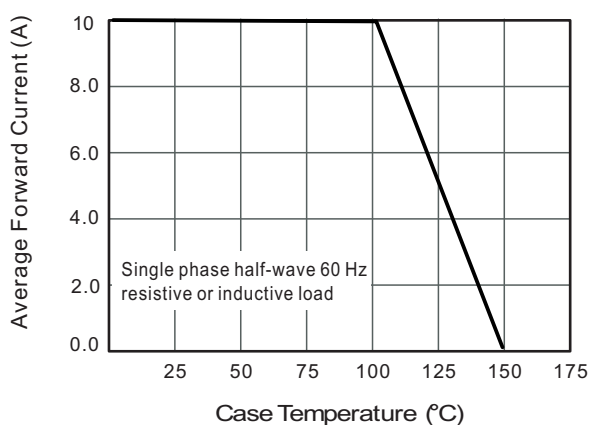


Fig.2 Typical Reverse Characteristics

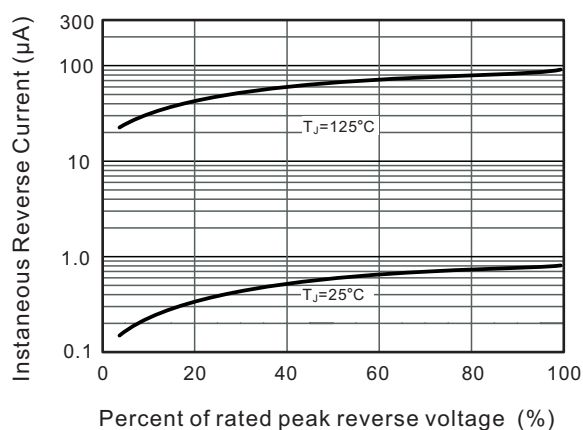


Fig.3 Typical Forward Characteristics

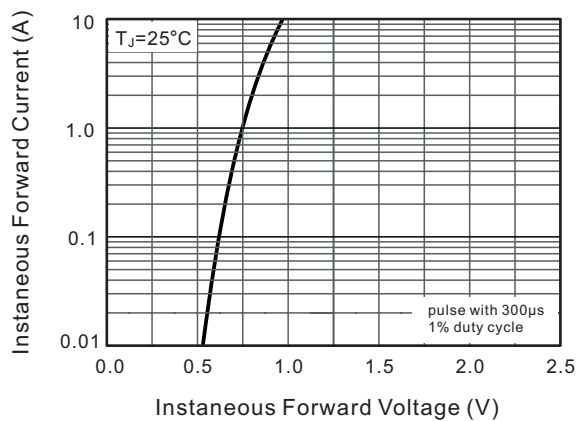
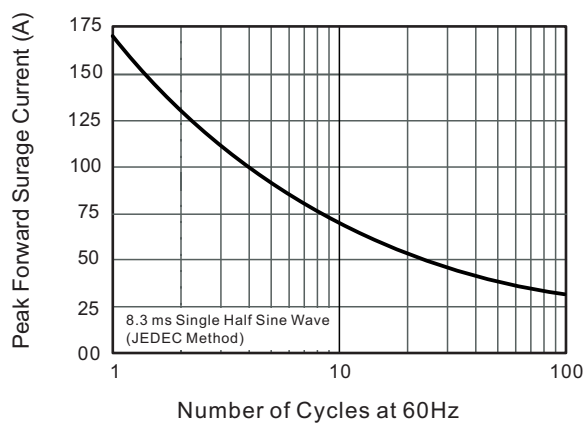


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

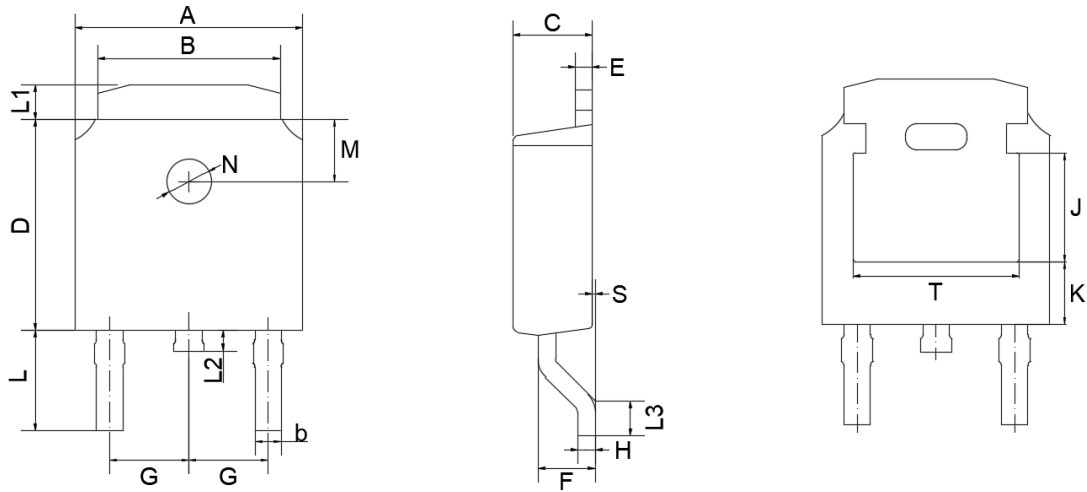




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TO-252(D-PAK) Package Outline Dimensions



TO-252(D-PAK) mechanical data

UNIT		A	B	b	C	D	E	F	G	H	L	L1	L2	L3	S	M	N	J	K	T
mm	max	6.7	5.5	0.86	2.5	6.3	0.6	1.8	2.29 TYPICAL	0.55	3.1	1.2	1.0	1.75	0.1	1.8 TYPICAL	1.3 TYPICAL	3.16 ref.	1.80 ref.	4.83 ref.
	min	6.3	5.1	0.66	2.1	5.9	0.4	1.3		0.45	2.7	0.8	0.6	1.40	0.0					
mil	max	264	217	33	98	248	24	71	90 TYPICAL	22	122	47	39	69	4	71 TYPICAL	51 TYPICAL	124 ref.	71 ref.	190 ref.
	min	248	201	26	83	232	16	51		18	106	31	24	55	0					