



MURD1040DD

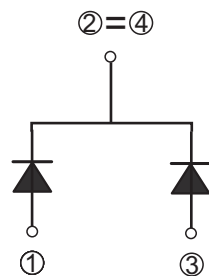
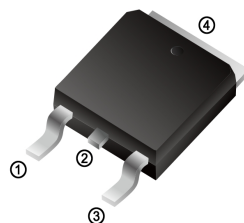
Superfast Recovery Rectifiers

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	Symbols	MURD1040DD	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Bridge Input Voltage	V_{RMS}	280	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current Per Leg Total	$I_{(AV)}$	5 10	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	70	A
Maximum Forward Voltage at 5A	V_F	1.3	V
Maximum DC Reverse Current $T_A=25^{\circ}C$ at Rated DC Blocking Voltage $T_A=125^{\circ}C$	I_R	1.0 100	μA
Maximum Reverse Recovery Time (Note1)	TRR	35	ns
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	4	$^{\circ}C/W$
Operating Temperature Range	T_J	-55 to +150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

NOTES: 1. Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_{rr} = 0.25 A$

2. Thermal resistance from Junction to case





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

Fig.1 Forward Current Derating Curve

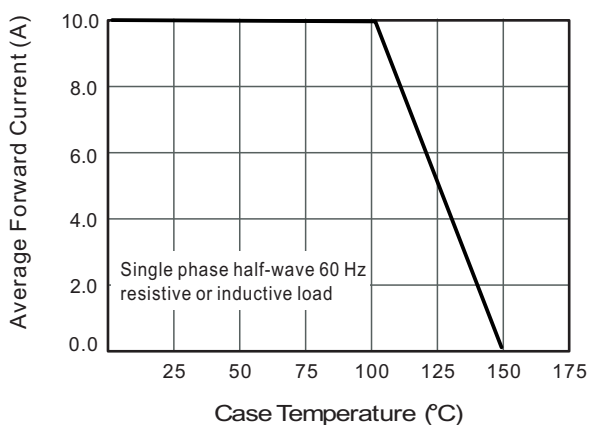


Fig.2 Typical Reverse Characteristics

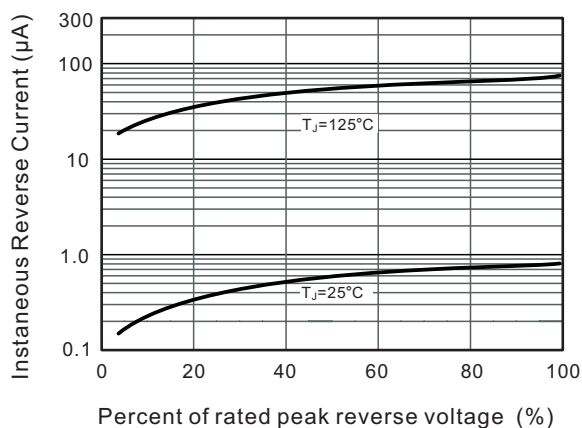


Fig.3 Typical Forward Characteristics

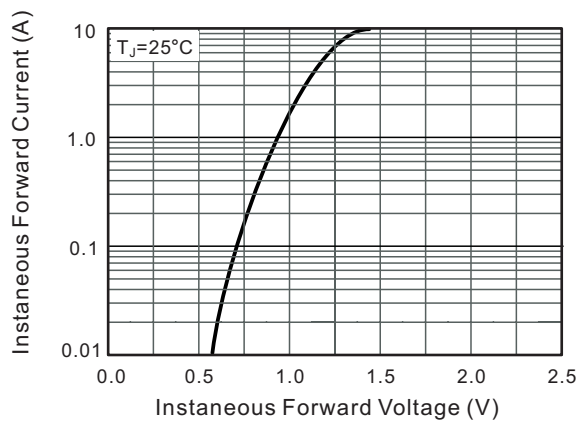
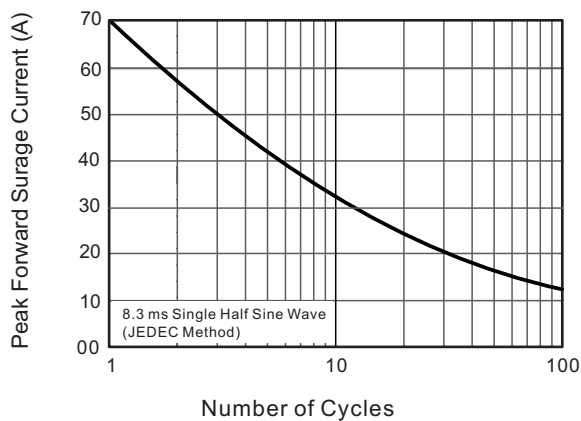


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

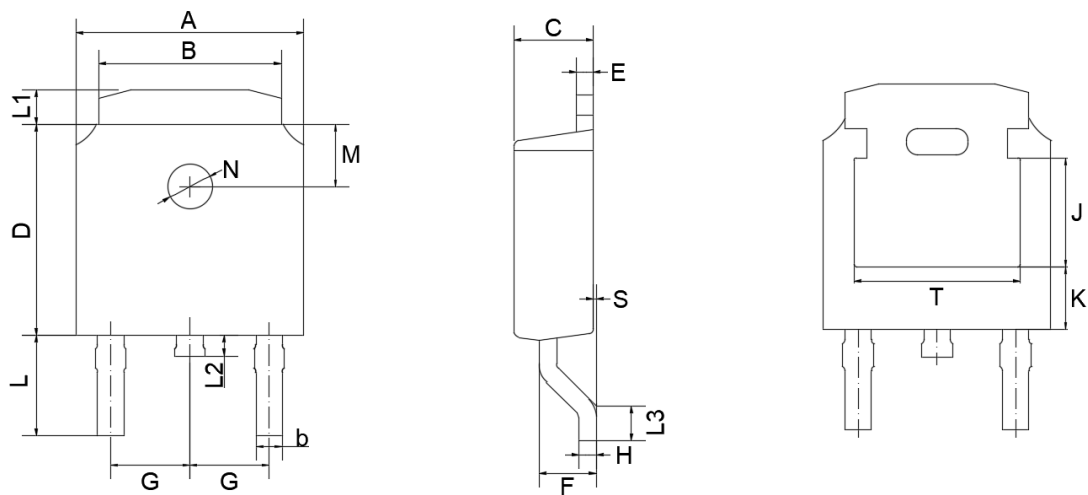




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TO-252(D-PAK) Package Outline Dimensions



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					