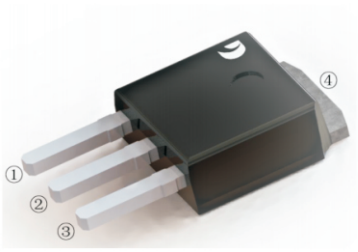
GLASS PASSIVATED RECTIFIERS

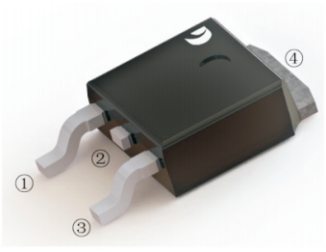
Reverse Voltage - 100 to 1000 V

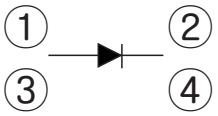
Forward Current - 5.0 A

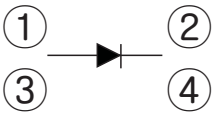
TO-251(I-PAK)



TO-252(D-PAK)







FEATURES

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

CHARACTERISTICS	TO-251	G501VS	G502VS	G504VS	G506VS	G508VS	G510VS	Units
	TO-252	G501DS	G502DS	G504DS	G506DS	G508DS	G510DS	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150						A
Max Instantaneous Forward Voltage at 5 A DC	V_F	1.1						V
Maximum DC Reverse Current T_a = 25°C at Rated DC Reverse Voltage T_a =125°C	I_R	5 500						uA
Typical Junction Capacitance (1)	C_j	50						pF
Typical Thermal Resistance (2)	$R_{\theta JC}$	25						°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150						°C
Storage Temperature Range	T_{stg}	-55 ~ +150						°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 10cmX10cmX1mm copper pad areas.

Fig.1 Forward Current Derating Curve

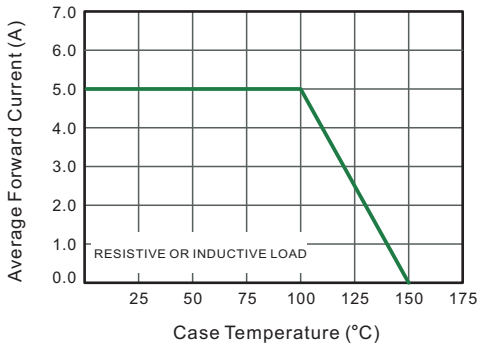


Fig.2 Typical Instaneous Reverse Characteristics

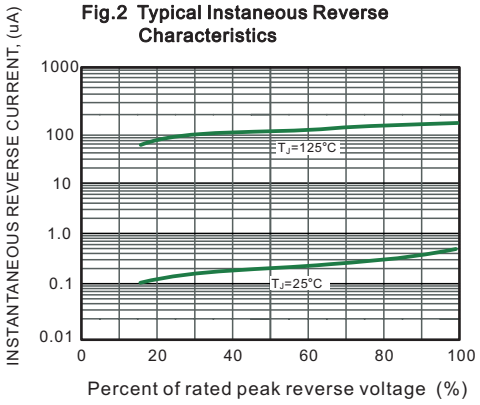


Fig.3 Typical Forward Characteristic

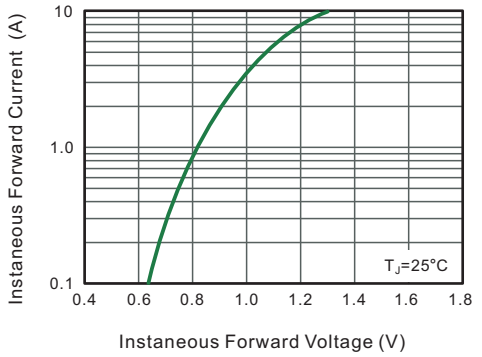


Fig.4 Typical Junction Capacitance

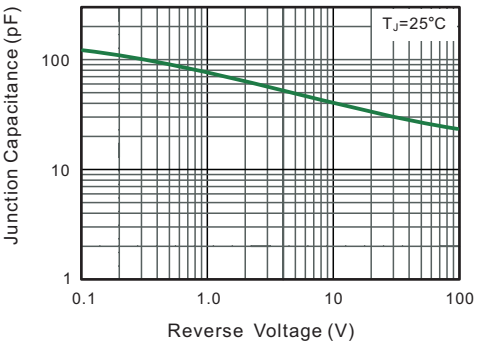


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

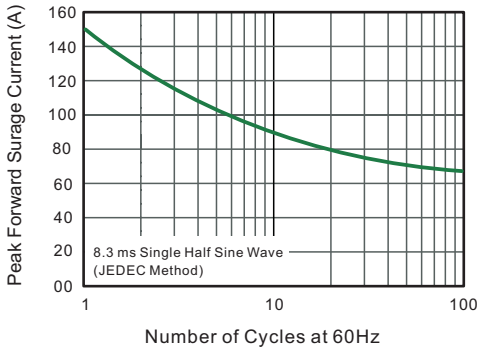
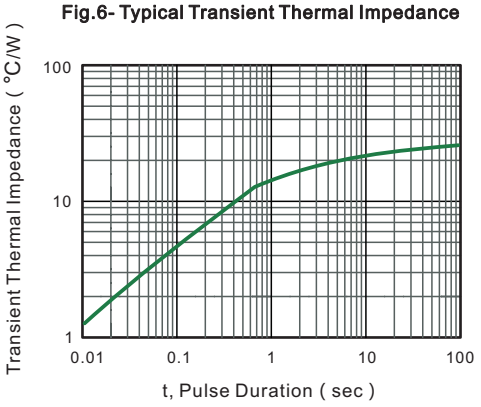
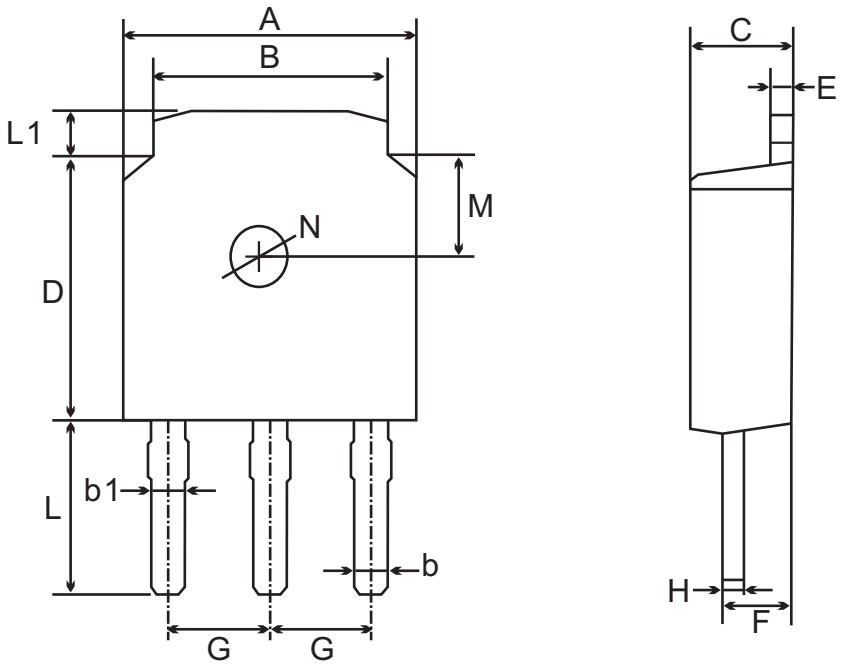


Fig.6- Typical Transient Thermal Impedance



TO-251(D-PAK) Package Outline Dimensions



TO-251(I-PAK) mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	6.7	5.5	0.8	0.9	2.5	6.3	0.6	1.8	2.29 TYPICAL	0.55	4.3	1.2	1.8 TYPICAL	1.3 TYPICAL
	min	6.3	5.1	0.3	0.76	2.1	5.9	0.4	1.3		0.45	3.9	0.8		
mil	max	264	217	31	35	98	248	24	71	90 TYPICAL	22	169	47	71 TYPICAL	51 TYPICAL
	min	248	201	12	30	83	232	16	51		18	154	31		

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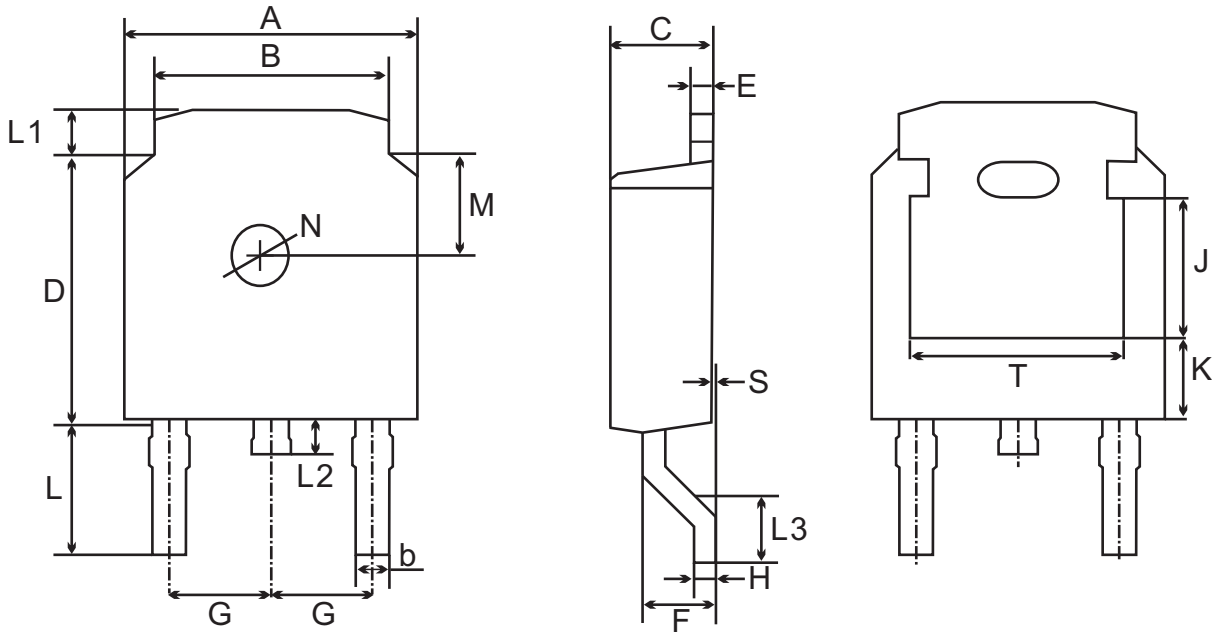
TO-252(D-PAK) Package Outline Dimensions



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	0.8	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	0.3	2.1	5.9	0.4	1.3		0.45	2.7	0.8	0.6	1.40	0.0					
mil	max	264	217	31	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	12	83	232	16	51		18	106	31	24	55	0					