



GLASS PASSIVATED RECTIFIERS

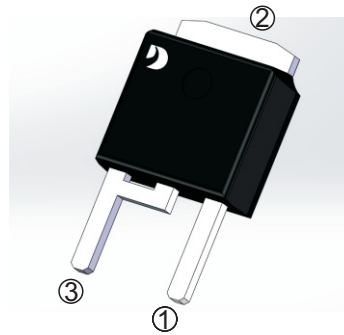
Reverse Voltage - 100 to 1000 V

Forward Current - 5.0 A

FEATURES

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

TO-251AC



RoHS
COMPLIANT



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

CHARACTERISTICS	Symbols	G501V	G502V	G504V	G506V	G508V	G510V	Units
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 $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 125^\circ\text{C}$	I_R	5 500						μA
Typical Junction Capacitance ⁽¹⁾	C_j	50						pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	50						$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	-55 ~ +150						$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +150						$^\circ\text{C}$

(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

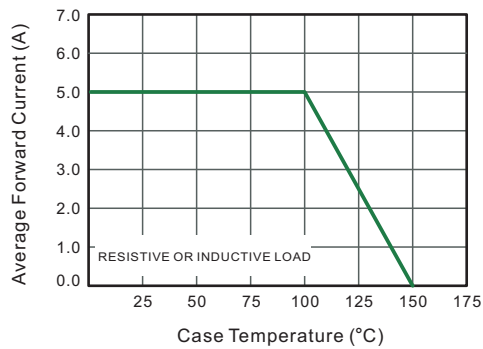


Fig.2 Typical Instantaneous Reverse Characteristics

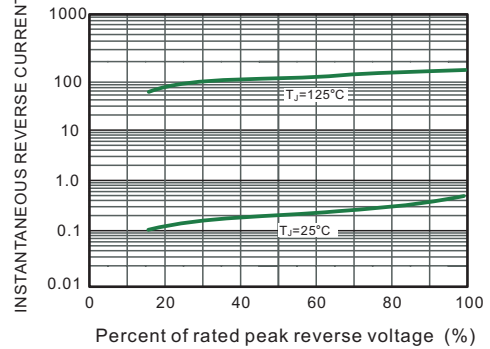


Fig.3 Typical Forward Characteristic

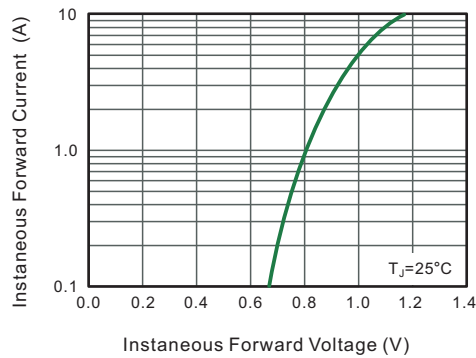


Fig.4 Typical Junction Capacitance

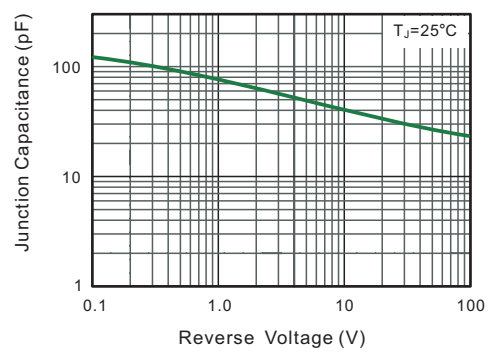


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

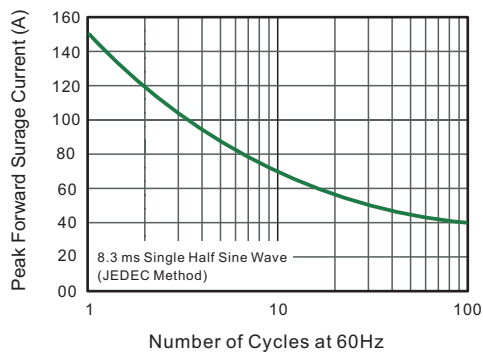
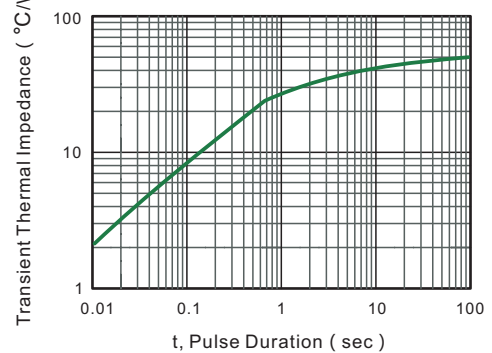
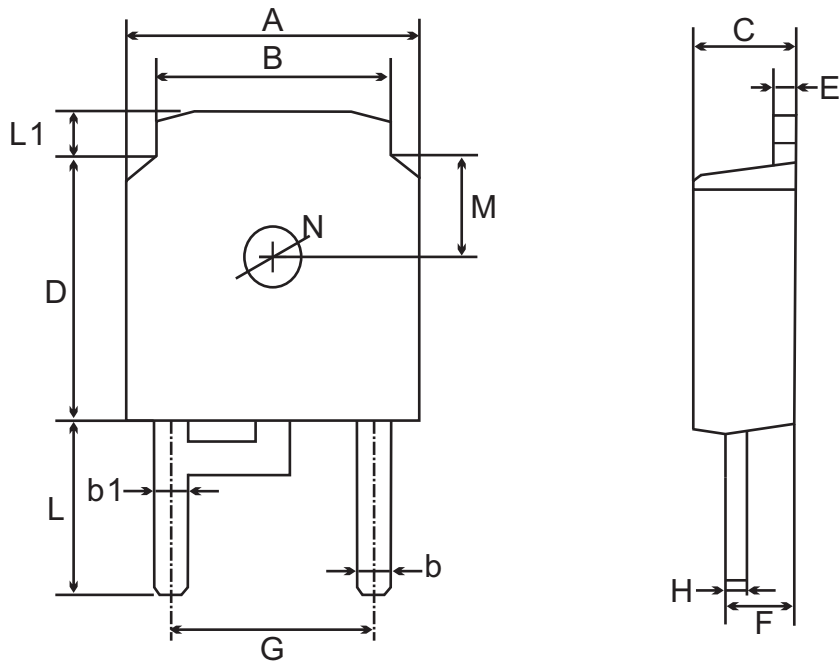


Fig.6- Typical Transient Thermal Impedance





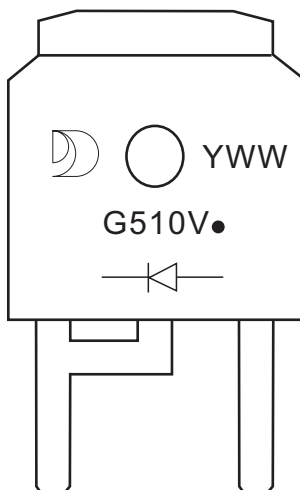
TO-251AC Package Outline Dimensions



TO-251AC 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	4.60 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	181 TYPICAL	22	169	47	71 TYPICAL	51 TYPICAL
	min	248	201	12	30	83	232	16	51		18	154	31		

MARKING DIAGRAM



YWW: Date Code
Y: Years(0~9)
WW: Week
G510V: Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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