



GLASS PASSIVATED RECTIFIERS

Reverse Voltage - 1000 V

Forward Current - 50 A

Features

- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7s, per JESD 22-B106

Mechanical data

- Case: TO-247-3L
- Approx. Weight: 6.3g (0.22oz)
- Lead free finish, RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.

Maximum Ratings And Electrical Characteristics

Ratings At 25°C Ambient Temperature Unless Otherwise Specified

Parameter	Symble	GR50100WD	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current Per leg Per device	$I_{F(AV)}$	25 50	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	500	A
Max Instantaneous Forward Voltage at 25 A	V_F	1.2	V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 125^{\circ}C$	I_R	10 500	uA
Typical Thermal Resistance	$R_{\theta JC}$	4	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

TO-247-3L

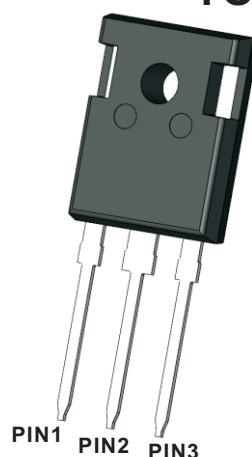




Fig.1 Forward Current Derating Curve

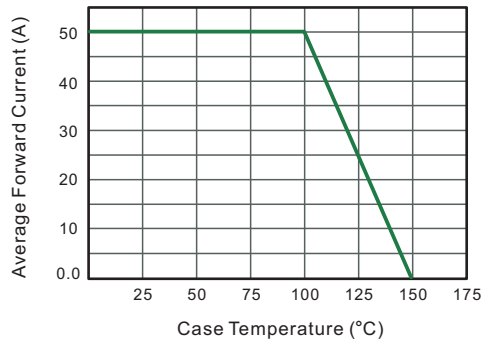


Fig.2 Typical Instaneous Reverse Characteristics

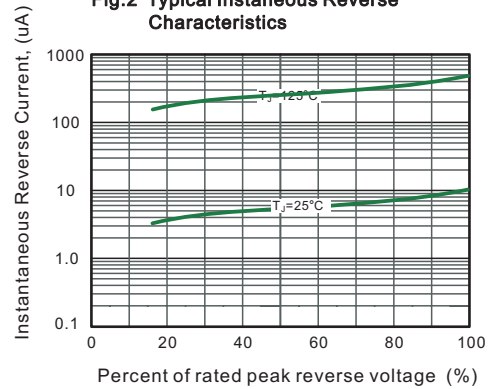


Fig.3 Typical Forward Characteristic

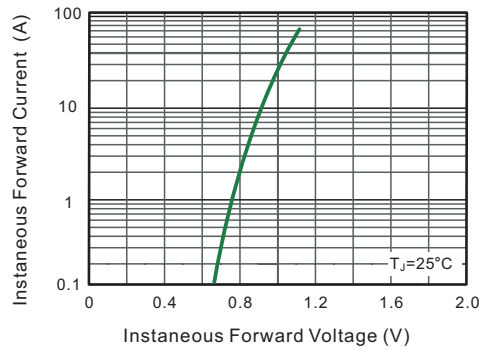
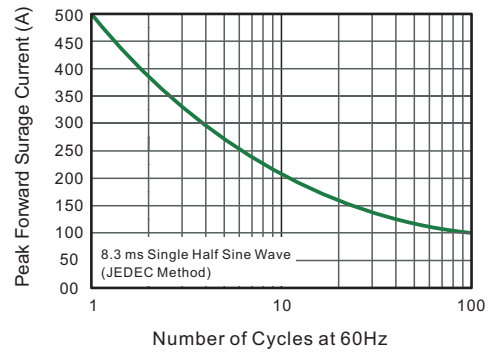


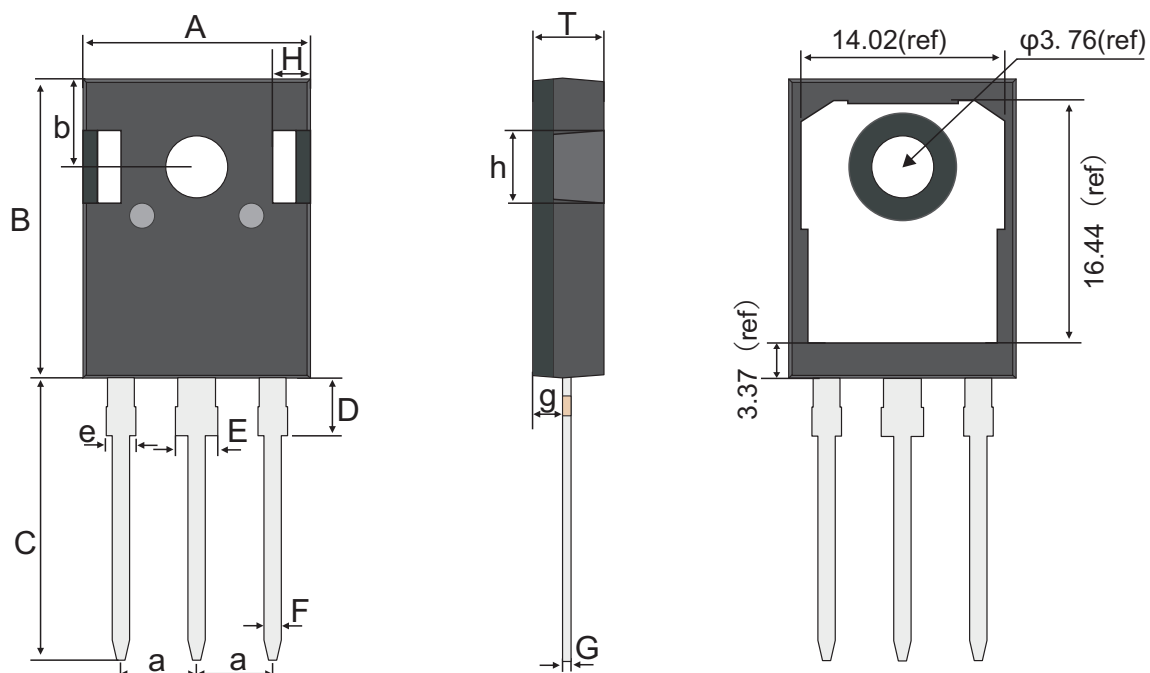
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





Package Outline
Through Hole Package ; 3 leads

TO-247-3L



TO-247-3L mechanical data

UNIT		A	a	B	b	C	D	E	e	F	G	g	H	h	T
mm	max	16.01	5.54	21.18	6.26	20.2	4.25	3.25	2.2	1.3	0.7	2.49	2.71	5.37	5.2
	typ	15.81	5.44	20.98	6.16	20.0	4.15	3.10	2.05	1.2	0.6	2.39	2.51	5.17	5.0
	min	15.61	5.34	20.78	6.06	19.8	4.05	2.95	1.9	1.1	0.5	2.29	2.31	4.97	4.8
mil	max	630	218	834	246	795	167	128	87	51	28	98	107	211	205
	typ	622	214	826	243	787	163	122	81	47	24	94	99	204	197
	min	615	210	818	239	780	159	116	75	43	20	90	91	196	189

Marking

Type number	Marking code
GR50100WD	GR50100WD



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