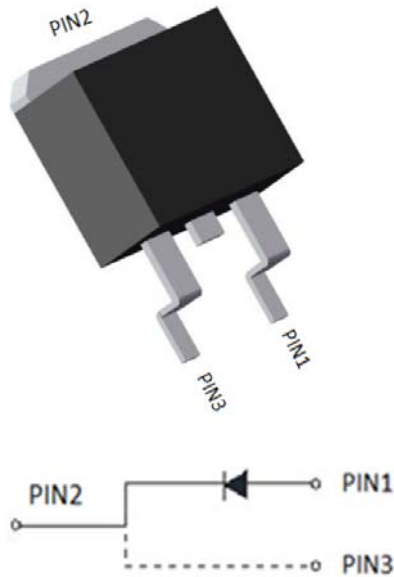


General Purpose Rectifier



Features

- Glass passivated chip junction
- 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. 7 s, per JESD 22-B106

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** TO-263
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GPB1510
Device Marking Code			GPB1510
Maximum Repetitive peak reverse voltage	V_{RRM}	V	1000
Maximum RMS Voltage	V_{RMS}	V	700
Maximum DC Blocking Voltage	V_{DC}	V	1000
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc(FIG.1)	I_o	A	15
Surge(Non-repetitive) Forward Current @60Hz half sine-wave, 1 cycle, Ta=25°C	I_{FSM}	A	220
Current Squared Time @1ms≤t<8.3ms Ta=25°C	I^2t	A ² s	200.86
Typical junction capacitance @ 1 MHz and Applied Reverse Voltage of 4.0V D.C.	C_j	pF	50
Storage Temperature	T_{stg}	°C	-55 ~ +150
Junction Temperature	T_j	°C	-55 ~ +150

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GPB1510
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=15.0A	1.1
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	μA	VRM=VRRM Ta=25°C	5
	IRRM2		VRM=VRRM Ta=125°C	100



GPB1510

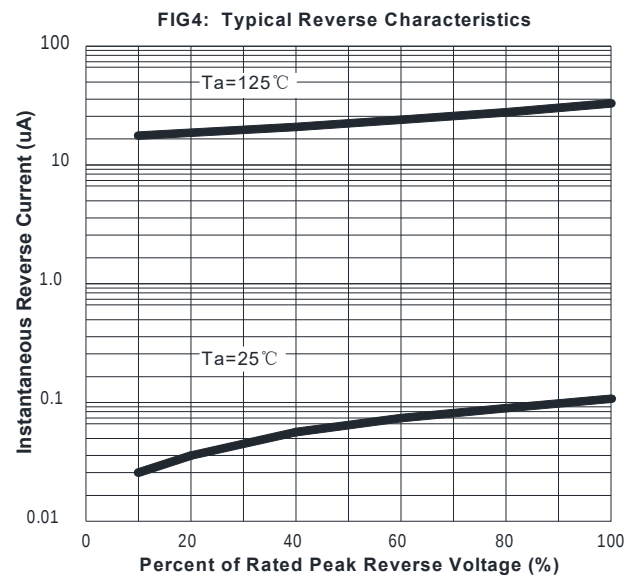
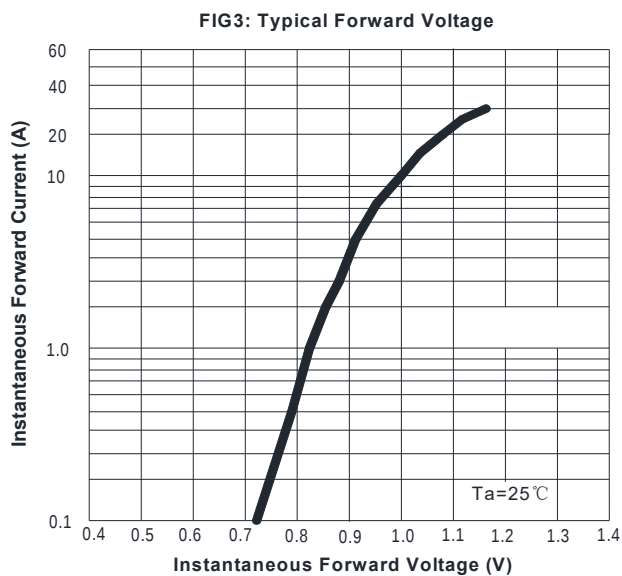
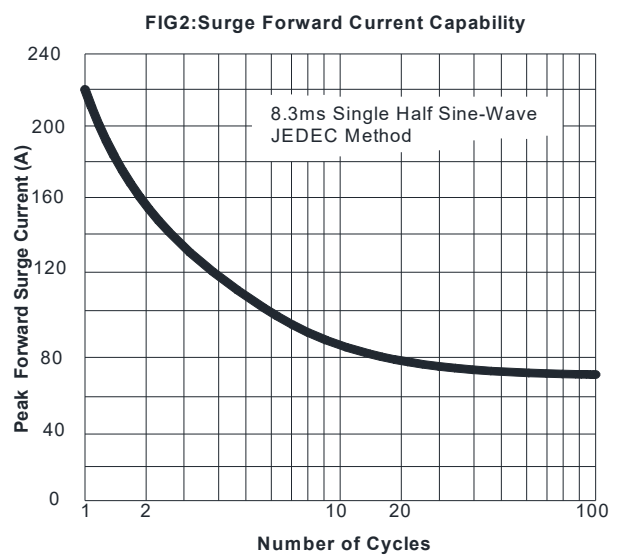
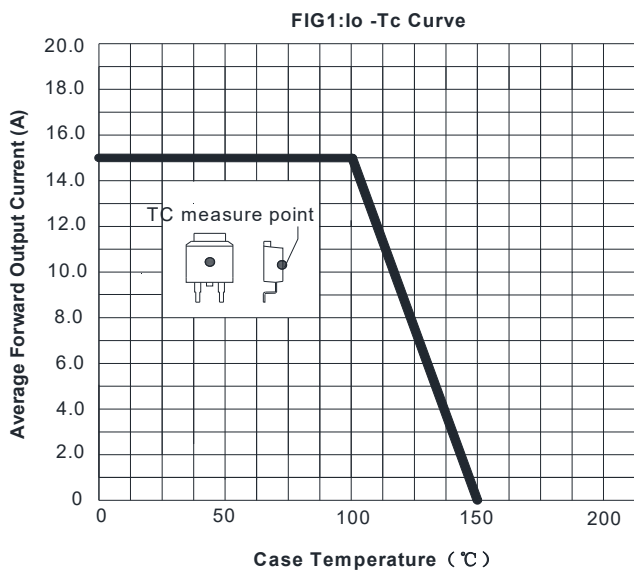
■ Thermal Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	GPB1510
Typical Thermal Resistance	Between junction and case	R _{θJ-C}	°C/W	3.0

■ Ordering Information (Example)

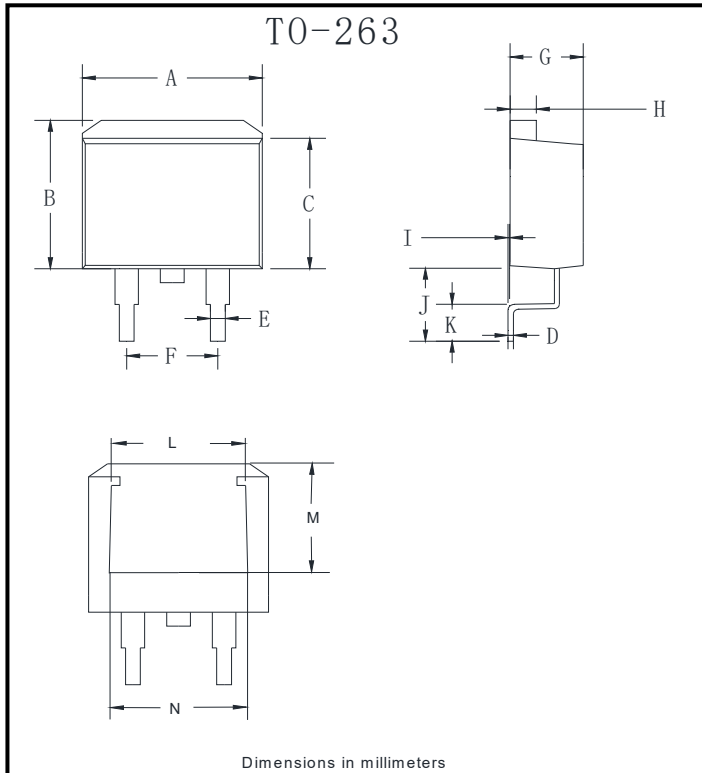
PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GPB1510	Approximate 1.48	50	1000	5000	Tube

■ Characteristics (Typical)





■Outline Dimensions



TO-263		
Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
I	0	0.2
J	4.9	6.05
K	1.79	2.79
L	7.3	7.9
M	6.2	6.8
N	7.6	8.2



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