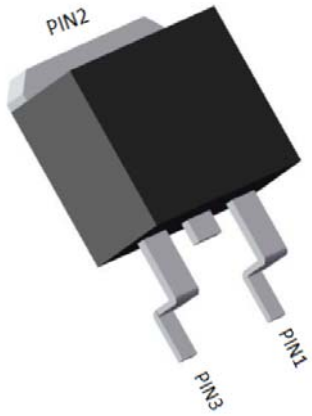
General Purpose Rectifier





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℃ 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)	Io	A	15
Surge(Non-repetitive) Forward Current @60Hz half sine-wave, 1 cycle, Ta=25℃	IFSM	A	220
Current Squared Time @1ms≤t<8.3ms Ta=25℃	I2t	A2s	200.86
Typical junction capacitance @ 1 MHz and Applied Reverse Voltage of 4.0V D.C.	Cj	pF	50
Storage Temperature	Tstg	℃	-55 ~ +150
Junction Temperature	Tj	℃	-55 ~ +150

■Electrical Characteristics (Ta=25℃ 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	uA	VRM=VRRM Ta=25℃	5
	IRRM2		VRM=VRRM Ta=125℃	100

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

PARAMETER		SYMBOL	UNIT	GPB1510
Typical Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W	3.0

■Ordering Information (Example)

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

■Characteristics (Typical)

FIG1:Io -Tc Curve

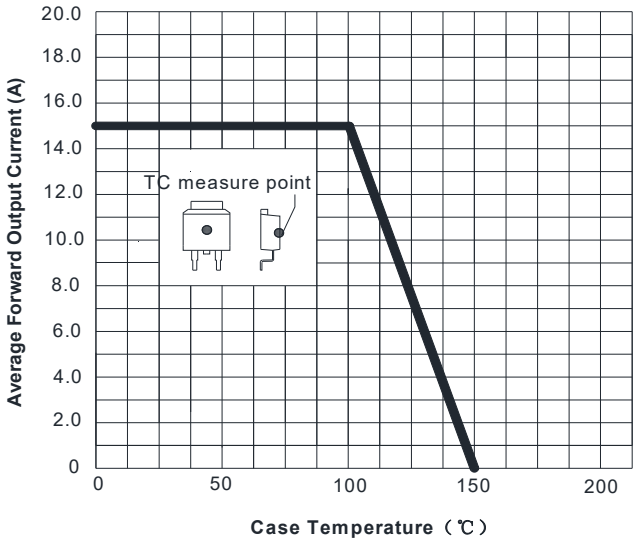


FIG2:Surge Forward Current Capability

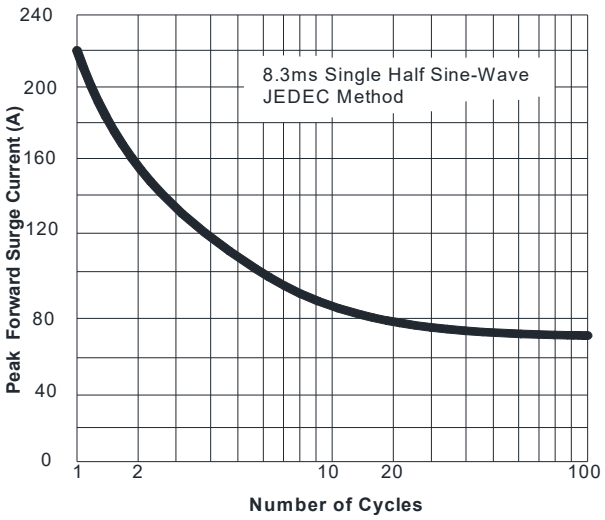


FIG3: Typical Forward Voltage

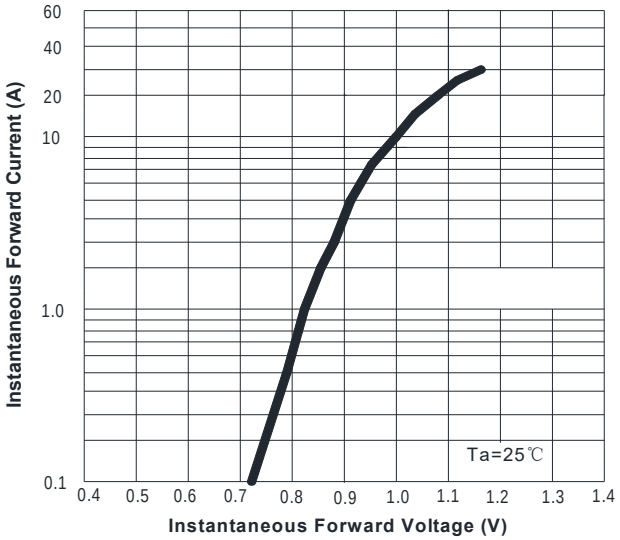
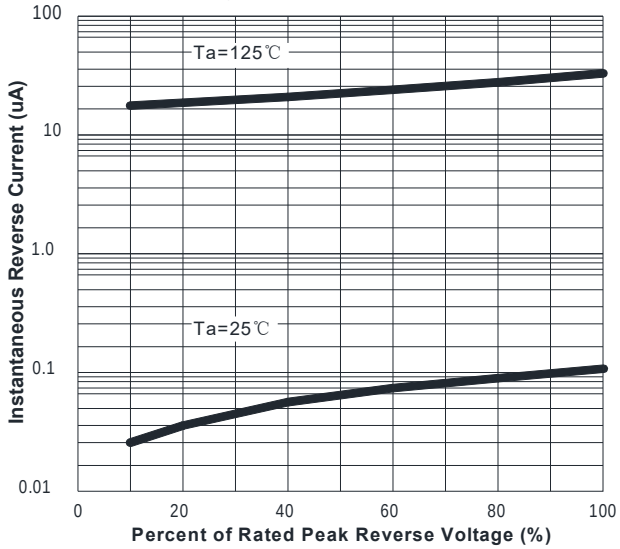
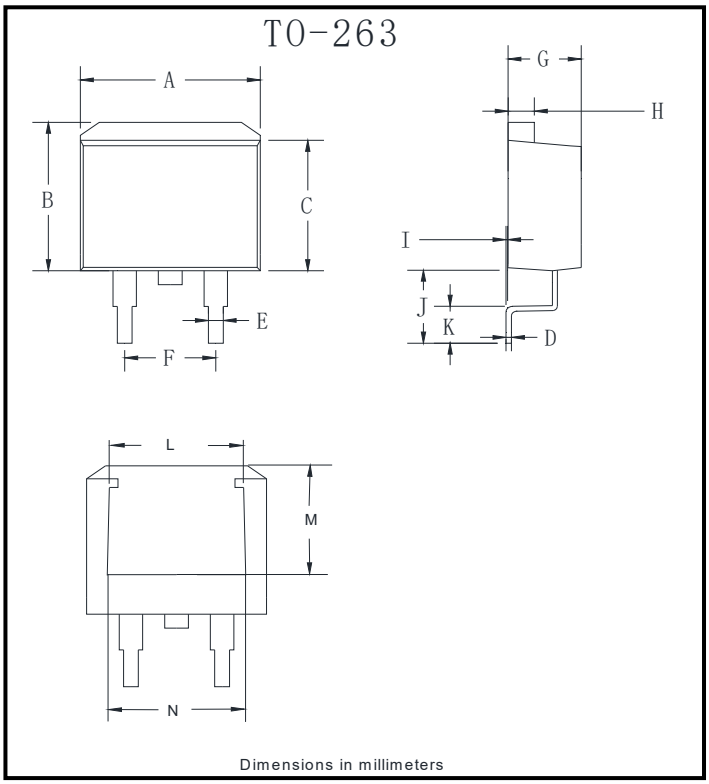


FIG4: Typical Reverse Characteristics



■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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