THINKI SEMICONDUCTOR ®

Pb Free Plating Product

MURB1520G/MURB1540G/MURB1560G

RoHS Pb

15.0 Amperes Surface Mount Single Ultra Fast Recovery Rectifier Diode

Features

- ✶ Latest P/G technology with super fast recovery time
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

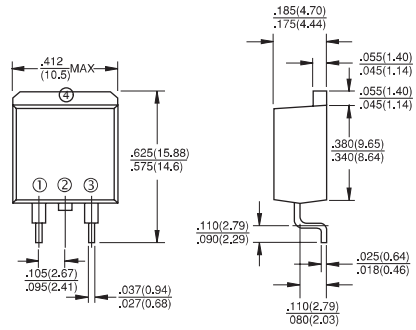
Application

- ✶ Automotive Inverters and Solar Inverters
- ✶ Plating Power Supply,SMPS,Motor Control and UPS
- ✶ Car Audio Amplifiers and Sound Device Systems

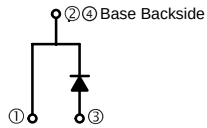
Mechanical Data

- ✶ Case: SMD TO-220(D2PAK/TO-263-2L)
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202 method 208
- ✶ Polarity: As marked on diode body
- ✶ Mounting position: Any
- ✶ Weight: 1.9 gram approximately

D2PAK/TO-263-2L Unit:inch(mm)



Internal Configuration



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MURB1520G	MURB1540G	MURB1560G	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current @T_A =125℃	$I_{(AV)}$	15.0			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	200			A
Peak Forward Voltage at 15.0A DC	V_F	0.95	1.25	1.50	V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=125℃	I_R	5.0 50			μA
Maximum Reverse Recovery Time(Note1)	T_{RR}	35-50			nS
Typical Junction Capacitance (Note2)	C_J	80			pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	2.0			℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 150			℃

NOTES:1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A

2.Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.

3.Thermal resistance junction to ambient

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RATING AND CHARACTERTIC CURVES (MURB1520G thru MURB1560G)

FIG.1- TYPICAL FORWARD CURRENT DERATING CURVE

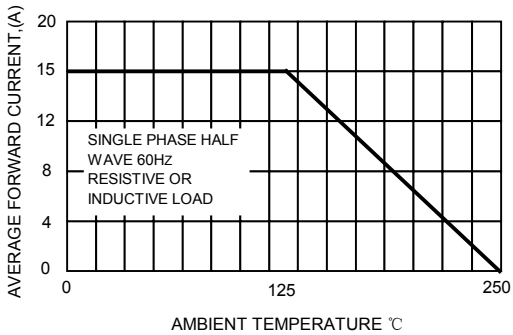


FIG.2-TYPICAL REVERSE CHARACTERISTICS

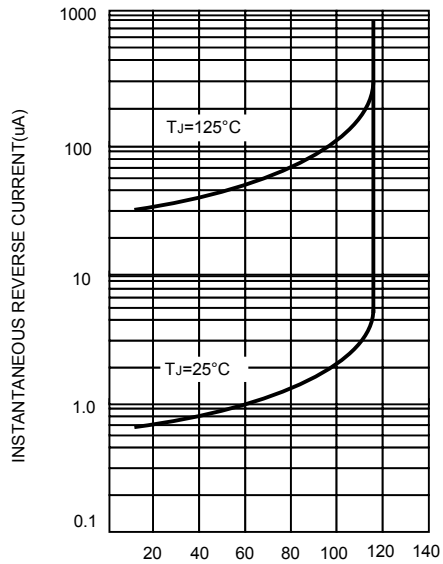


FIG.3-MAXIMUM NON-REPETITVE FORWARD SURGE CURRENT

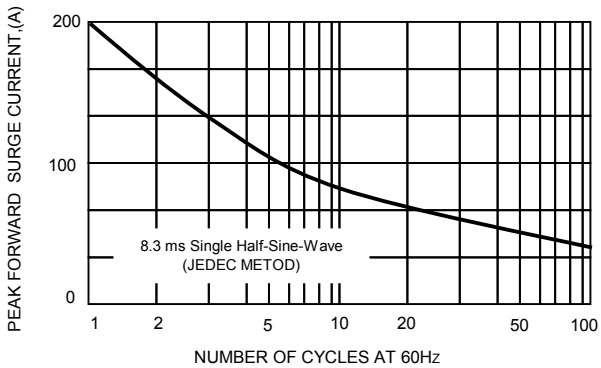


FIG.4-TYPICAL INSTANTAEOUS FORWARD CHARACTERISTICS

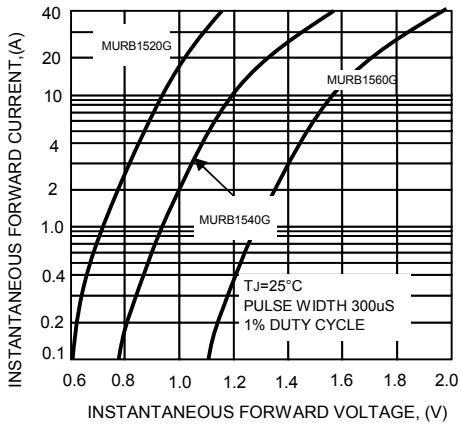
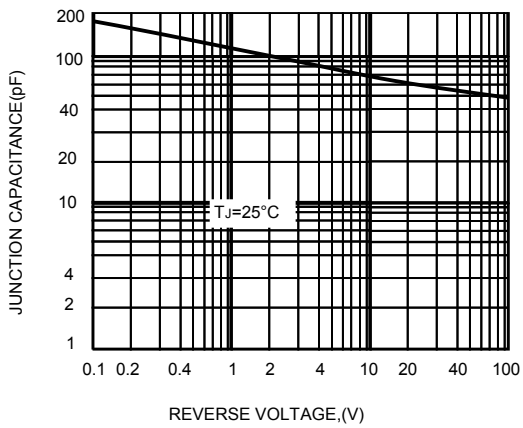


FIG.5-TYPICAL JUNCTION CAPACITANCE



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