1.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier (SGP®)

Features

DO-15

- Sintered glass passivated (SGP®) rectifier chip
- Ultra fast reverse recovery time
- Low forward voltage, high current capability
- Low leakage current, high surge current capability
- High temperature soldering guaranteed:260°C/10 seconds /.0375" (9.5mm) lead length, 5lbs (2.3kg) tension
- 175° C operation junction temperature
- RoHS Compliance

Mechanical Data

Case:	JEDEC DO-15, molded plastic body
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode end
Weight:	0.015 ounces, 0.4 grams

Maximum Ratings and Electrical Characteristics *(T_A=25ºC unless noted otherwise)*

Symbol	Description	MUR130	MUR140	MUR160	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	300	400	600	V	
V_{RMS}	Maximum RMS Voltage	210	280	420	V	
V_{DC}	Maximum DC Blocking Voltage	300	400	600	V	
$I_{F(AV)}$	Maximum Average Forward Rectified Current	1.0			A	T_A=120° C
I_{FSM}	Peak Forward Surge Current	35			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
V_F	Maximum Instantaneous Forward Voltage	1.25			V	I_F=1.0A, T_j=25° C

MUR130 – MUR160

Symbol	Description	MUR130	MUR140	MUR160	Unit	Conditions
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5			µA	T_j=25° C
		50				T_j=125° C
		100				T_j=150° C
T_{rr}	Maximum Reverse Recovery Time	50			nS	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
T_{fr}	Maximum Forward Recovery Time	50			nS	I_F=1.0A, di/dt=100A/µS, recovery to 1.0V
C_J	Typical Junction Capacitance	25			pF	V_R=4V, f=1MHz
R_{thJA}	Typical Thermal Resistance	50			°C / W	Note
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +175			° C	

Note: Thermal resistance from junction to ambient lead at 0.375” (9.5mm) lead length, P.C.B mounted with 1.5 x 1.5” (38 x 38mm) copper pads as shown in Fig-1.

Typical Characteristics Curves

Fig.1-Forward Current Derating Curve

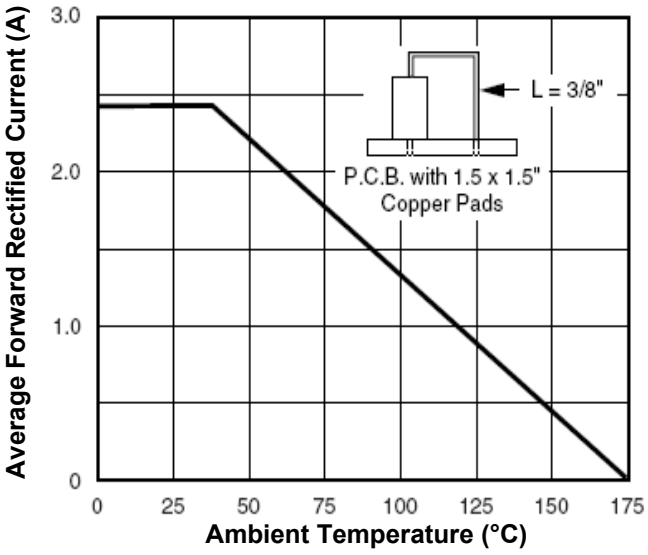


Fig.2-Max. Non-Repetitive Peak Forward Surge Current

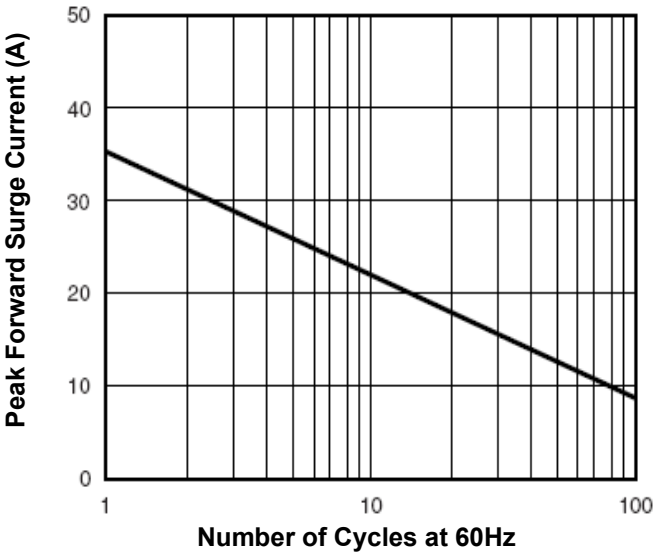


Fig.3- Typical Instantaneous Forward Characteristics

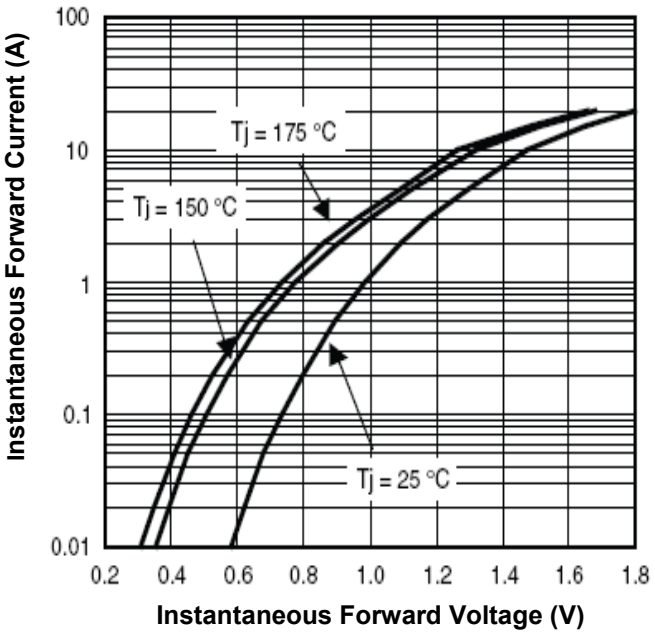


Fig.4-Typical Reverse Characteristics

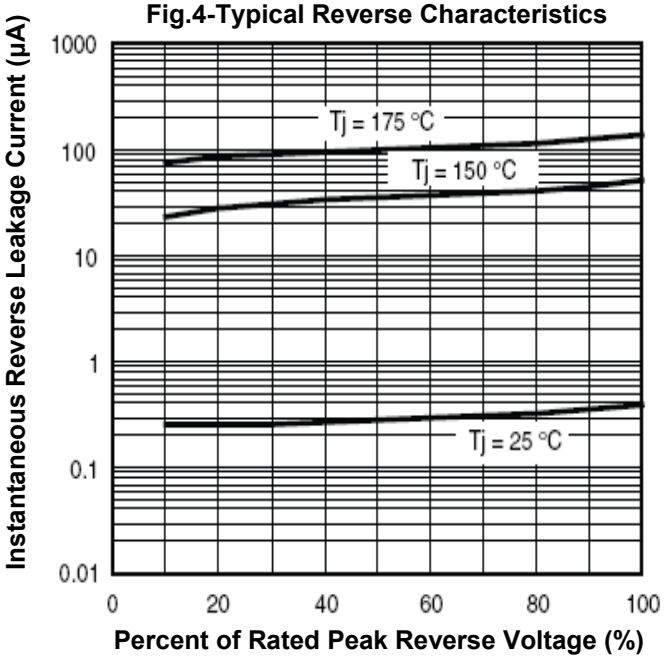
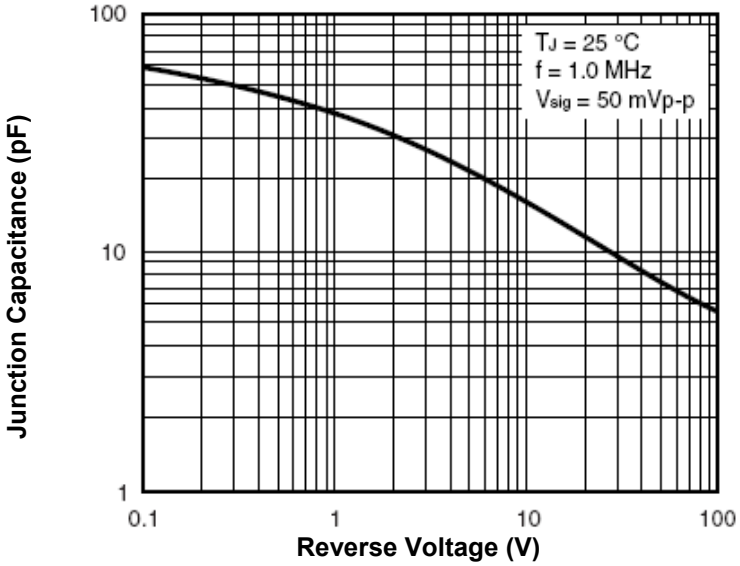
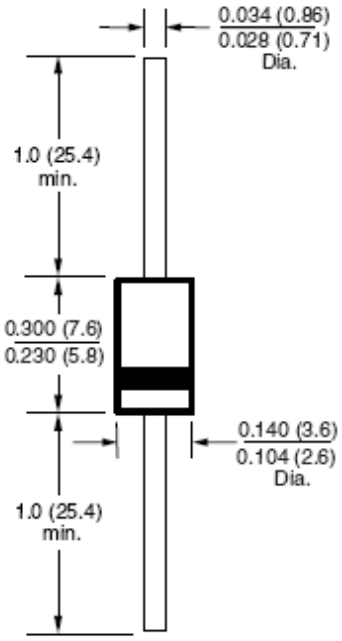


Fig.5- Typical Junction Capacitance



Dimensions in inches (mm)



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