



Features

- ✧ For surface mounted application
- ✧ Easy pick and place
- ✧ Glass passivated junction chip
- ✧ Low profile package
- ✧ Built-in strain relief
- ✧ Hideal for automated placement
- ✧ Ultrafast recovery time for high efficiency
- ✧ Low forward voltage, low power loss
- ✧ High temperature soldering guaranteed:
260°C/10 seconds on terminals
- ✧ Plastic material used carriers Underwriters
Laboratory Classification 94V-0
- ✧ Epitaxial construction
- ✧ Green compound with suffix "G" on packaing
code & prefix "G" on datecode

Mechanical Data

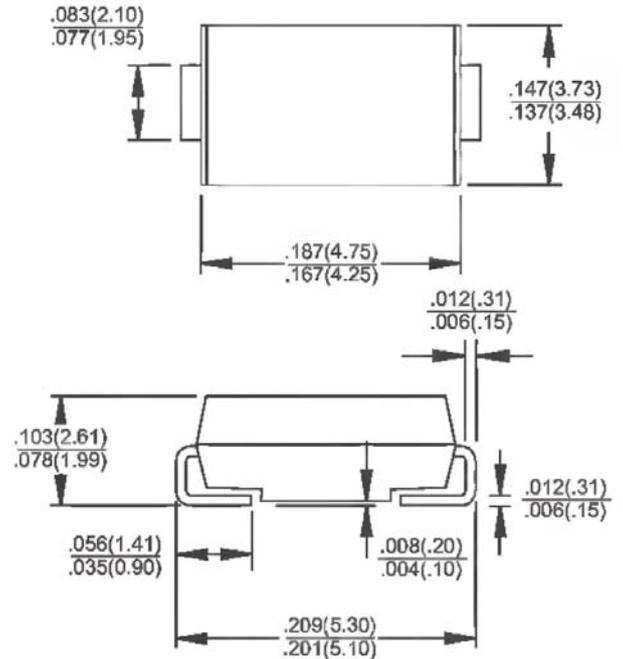
- ✧ Case: SMB/DO-214AA
- ✧ Molding Compound meet UL 94V-0 flammability
rating.
- ✧ Terminals: Pure tin plated, leads free , solderable
per MIL-STD-750, Method 2026
- ✧ Polarity: Indicated by cathode band
- ✧ Weight: 0.097 gram

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

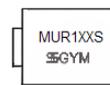
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%



Dimensions in inches and (millimeters)

Marking Diagram



- MUR1XXS = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

Parameter	Symbol	MUR 105S	MUR 110S	MUR 115S	MUR 120S	MUR 140S	MUR 160S	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	40				35		A
Maximum Instantaneous Forward Voltage @ Ta=25°C @ Ta=150°C	V_F	0.875 0.710				1.25 1.05		V
Maximum Reverse Current @Ta=25 °C @Ta=150 °C	I_R	2.0 50				5.0 150		uA
Max Reverse Recovery Time(Note 1)	T_{rr}	25				50		nS
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	17.0						°C/W
Operating Temperature Range	T_J	-65 to + 175						°C
Storage Temperature Range	T_{STG}	-65 to + 175						°C

Note1: Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

Note2: Mount on Cu-Pad Size 10.0mm x 10.0mm x 1.6mm on P.C.B

RATINGS AND CHARACTERISTIC CURVES (MUR105S THRU MUR160S)

Fig.1 Maximum Forward Current Derating Curve

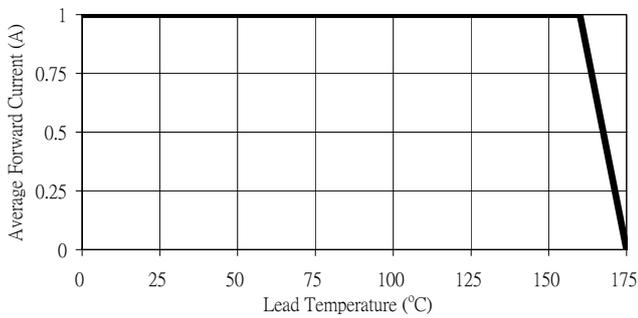


Fig.2 Maximum Non-Repetitive Forward Surge Current Perleg

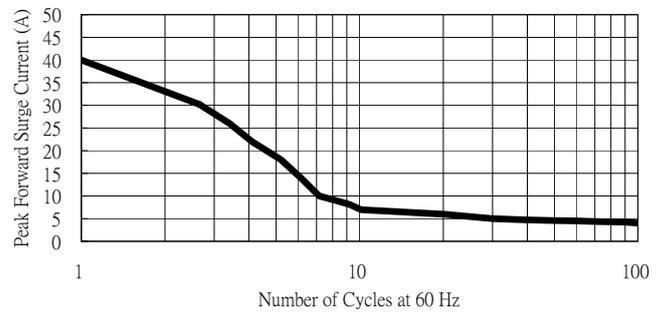


Fig. 3 Typical Forward Characteristics(MUR105S-120S)

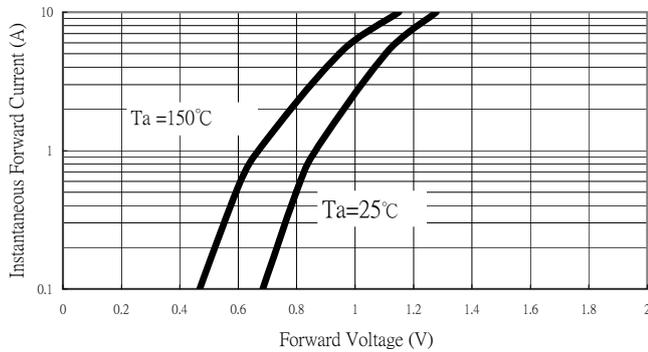


Fig. 4 Typical Forward Characteristic(MUR140S/160S)

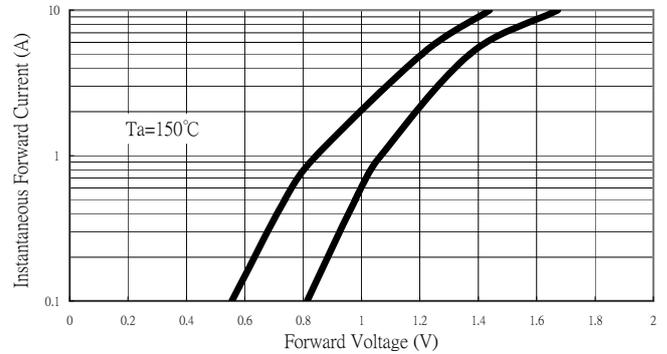


Fig. 5 Maximum Reverse Characteristics(MUR105S-120S)

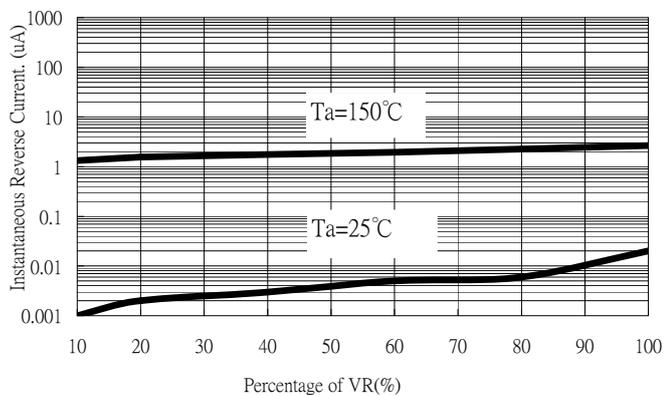


Fig. 6 Maximum Reverse Characteristics (MUR140S/160S)

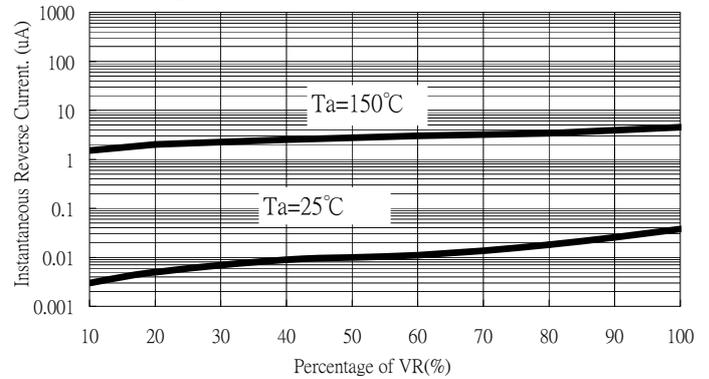


Fig.7 Typical Junction Capacitance

