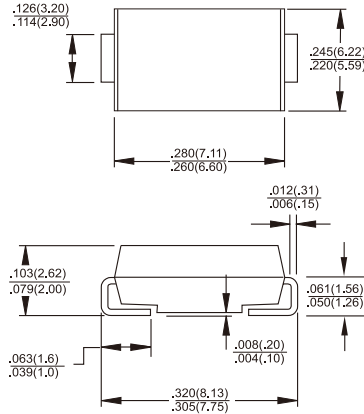


MUR305S - MUR360S

3.0 AMPS. Surface Mount Ultrafast Power Rectifiers



SMC/DO-214AB



Dimensions in inches and (millimeters)

Marking Diagram



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

Features

- ✧ For surface mounted application
- ✧ Glass passivated junction chip
- ✧ Low profile package
- ✧ Build-in strain relief
- ✧ Qualified as per AEC-Q101
- ✧ Ideal 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 packing
code & prefix "G" on datecode

Mechanical Data

- ✧ Case: SMC/DO-214AB
- ✧ Packaging: 16mm tape per EIA Std RS-481
- ✧ Terminals: Pure tin plated, lead free, solderable
per MIL-STD-750, Method 2026
- ✧ Polarity: Indicated by cathode band
- ✧ Weight: 0.21 grams

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%

Type Number	Symbol	MUR 305S	MUR 310S	MUR 315S	MUR 320S	MUR 340S	MUR 360S	Units
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	$I_{F(AV)}$	3						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	75						A
Maximum Instantaneous Forward Voltage @ 3.0A / $T_A=25^\circ\text{C}$ @ 3.0A / $T_A=150^\circ\text{C}$	V_F	0.875 0.710			1.25 1.05			V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25^\circ\text{C}$ (Note 1) @ $T_A=150^\circ\text{C}$	I_R	5 150			10 250			μA μA
Max Reverse Recovery Time(Note 2)	T_{rr}	25			50			nS
Max Reverse Recovery Time(Note 3)	T_{rr}	35			75			nS
Typical Thermal Resistance (Note 4)	$R_{\theta JL}$	11						$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to + 175						$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to + 175						$^\circ\text{C}$

- Note: 1. Pulse Test with $PW=300\ \mu\text{sec}$, 1% Duty Cycle
 2. Reverse Recovery Time Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 3. Reverse Recovery Test Conditions: $I_F=1\text{A}$, $dI/dt=50\text{A}/\mu\text{s}$, $V_R=30\text{V}$, $I_{RR}=10\%I_{RM}$
 4. Mount on Cu-Pad Size 10.0mm x 10.0mm x 1.6mm on P.C.B

Version: C10

RATINGS AND CHARACTERISTIC CURVES (MUR305S THRU MUR360S)

Fig. 1 Maximum Forward Current Derating Curve

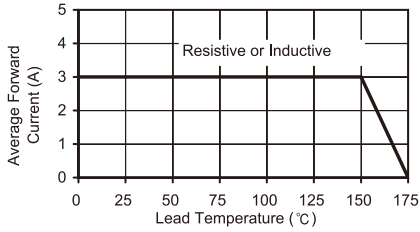


Fig. 2 Maximum Forward Surge Current

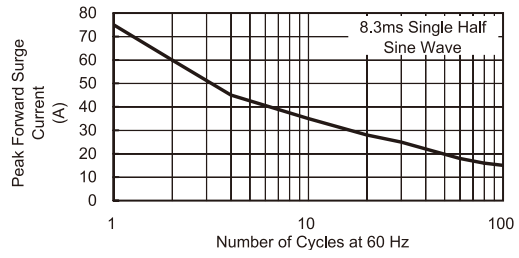


Fig. 3 Typical Forward Characteristics (MUR305S~320S)

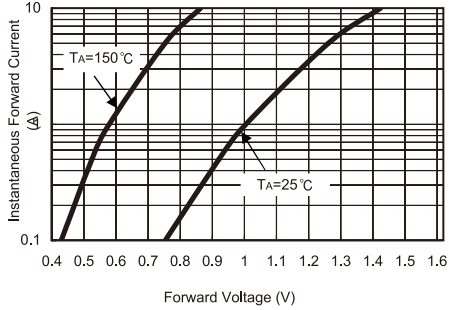


Fig. 4 Typical Forward Characteristics (MUR340S~360S)

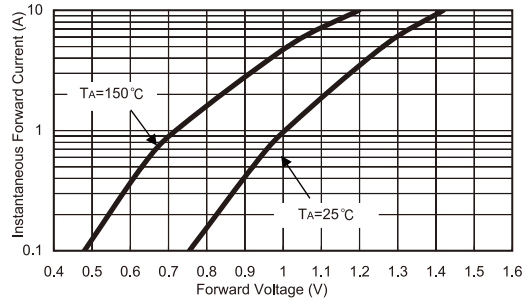


Fig. 5 Typical Reverse Characteristics

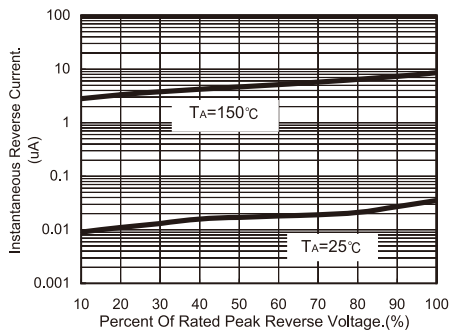


Fig. 6 Typical Reverse Characteristics (MUR340S~360S)

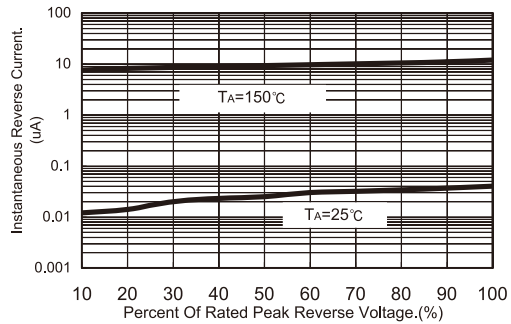


Fig. 7 Typical Junction Capacitance

