



MUR305S-MUR360S

3.0Amp Surface Mount Ultrafast Power Rectifier

SMC/DO-214AB

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 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.

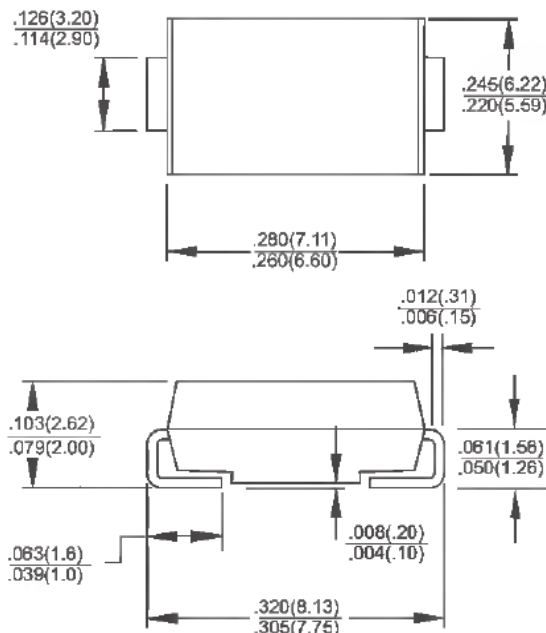
For capacitive load, derate current by 20%

Parameter	Symbol	MUR 305S	MUR 310S	MUR 315S	MUR 320S	MUR 340S	MUR 360S	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)}	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 (Pulse test: tp=300us, δ < 1%) @ 3.0A / Ta=25℃ @ 3.0A / Ta=150℃	V _F	0.875 0.710				1.25 1.05		V
Maximum Reverse Current (Pulse test: tp=300us, δ < 1%) Ta=25 ℃ Ta=150 ℃	I _R	5 150				10 250		uA
Max Reverse Recovery Time(Note 1)	T _{rr}	25				50		ns
Max Reverse Recovery Time(Note 2)	T _{rr}	35				75		ns
Typical Thermal Resistance (Note 3)	R _{θJL}	11						℃/W
Operating Temperature Range	T _J	-65 to + 175						℃
Storage Temperature Range	T _{STG}	-65 to + 175						℃

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

Note2: Reverse Recovery Test Conditions: $I_F=1A$, $dI/dt=50A/\mu s$, $V_R=30V$, $I_{RR}=10\%I_{RM}$

Note3: Mount on Cu-Pad Size 10.0mm x 10.0mm x 1.6mm on P.C.B



Dimensions in inches and (millimeters)

Marking Diagram



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

RATINGS AND CHARACTERISTIC CURVES (MUR305S THRU MUR360S)

Fig.1 Maximum Forward Current Derating Curve

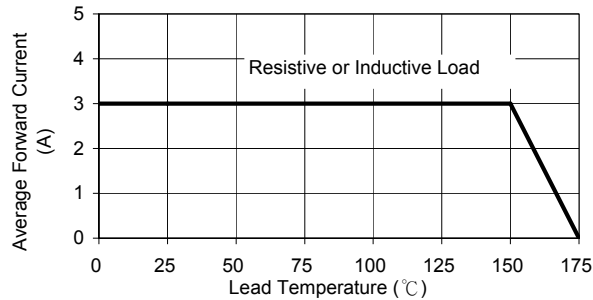


Fig. 2 Maximum Forward Surge Current

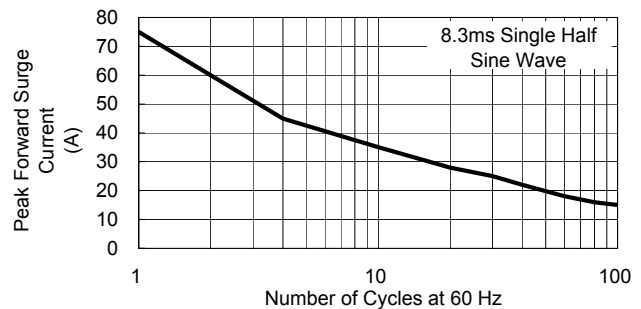


Fig. 3 Typical Forward Characteristics (MURS305S~320S)

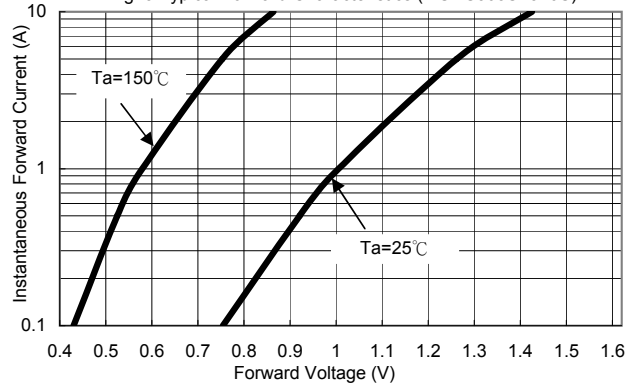


Fig. 4 Typical Forward Characteristics (MURS340S~360S)

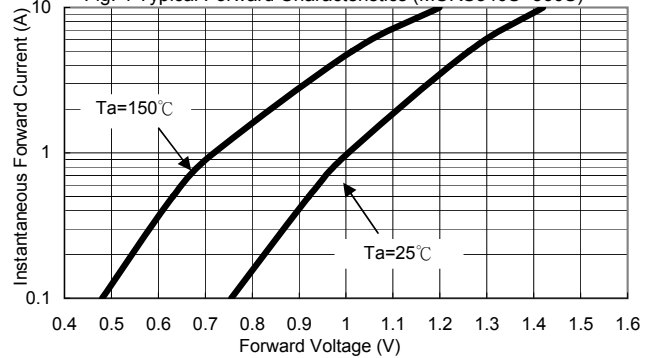


Fig. 5 Typical Reverse Characteristics (MURS305S~320S)

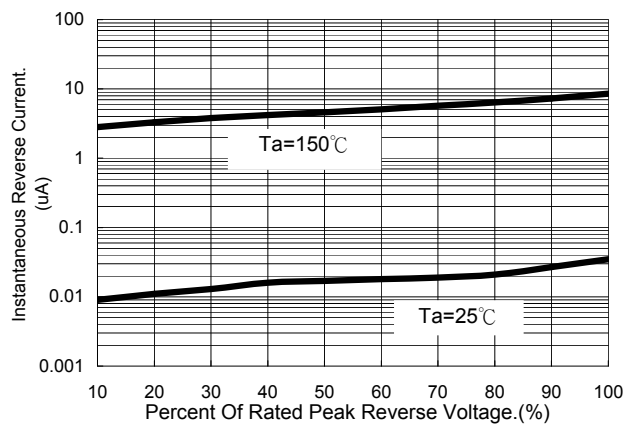


Fig. 6 Typical Reverse Characteristics (MURS340S~360S)

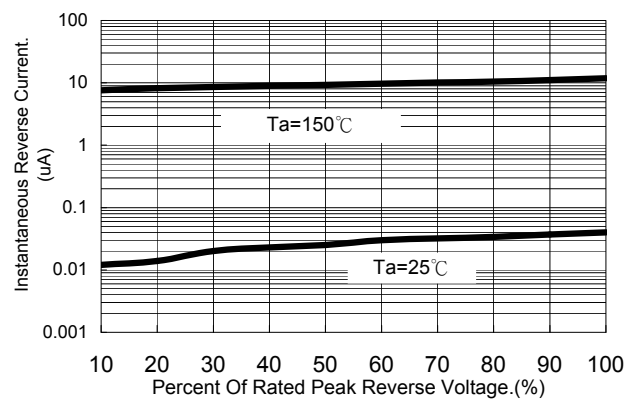


Fig. 7 Typical Junction Capacitance

