

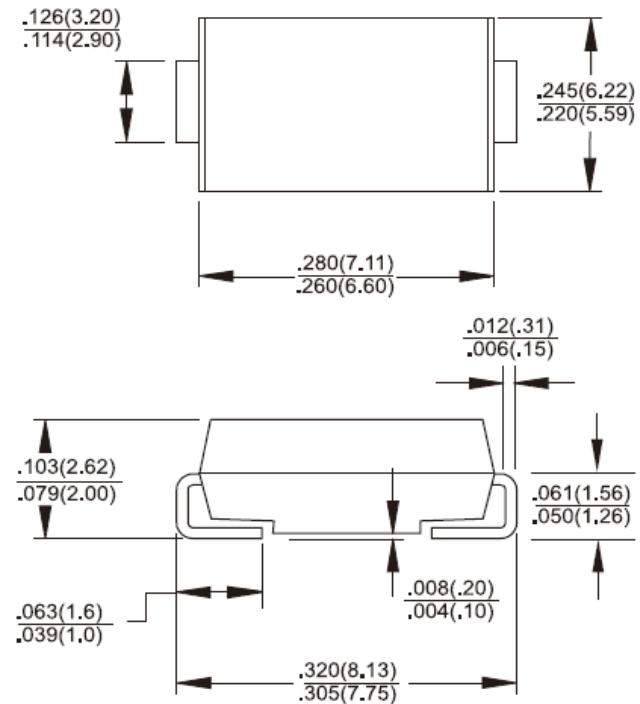


## MUR305S - MUR360S

### 3.0 AMPS. Surface Mount Ultrafast Power Rectifiers SMC/DO-214AB

#### Features

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



#### Mechanical Data

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

#### Dimensions in inches and (millimeters)

##### Marking Diagram



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

#### 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	$I_{F(AV)}$	3.0						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	75						A
Maximum Instantaneous Forward Voltage (Note 1) @ 3.0A @ $T_A=25^\circ\text{C}$ @ $T_A=150^\circ\text{C}$	$V_F$	0.875 0.710				1.25 1.05		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25^\circ\text{C}$ @ $T_A=150^\circ\text{C}$	$I_R$	5 150				10 250		$\mu\text{A}$
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	25				50		nS
Typical Thermal Resistance	$R_{\theta JL}$	11						$^\circ\text{C/W}$
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=300usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Condition:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

## RATINGS AND CHARACTERISTIC CURVES (MUR305S THRU MUR360S)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

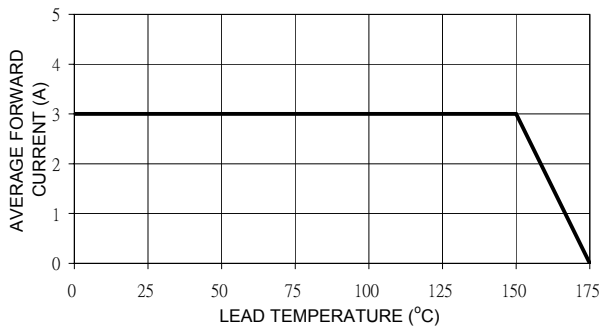


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

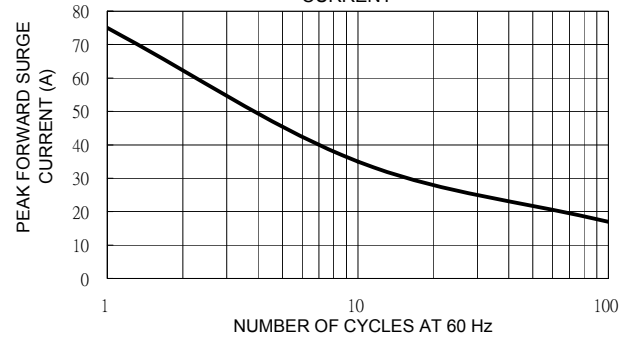


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

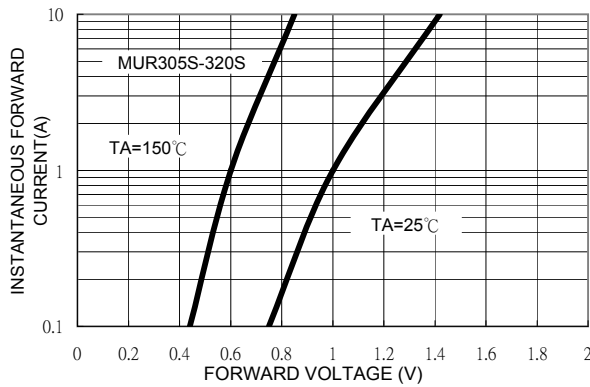


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

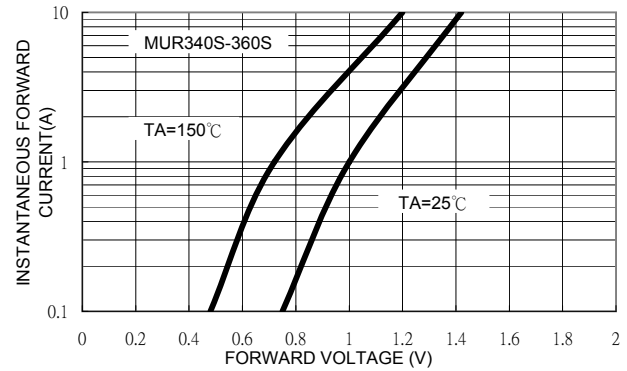


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

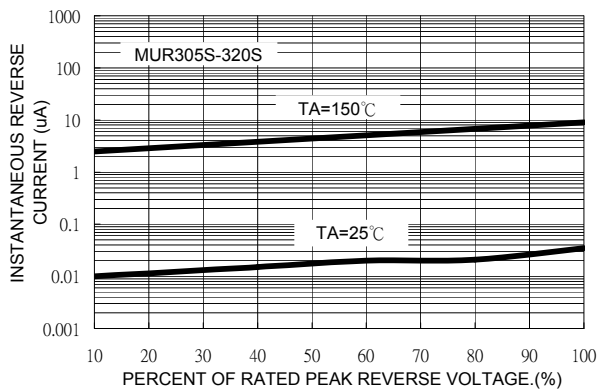


FIG. 6 TYPICAL REVERSE CHARACTERISTICS

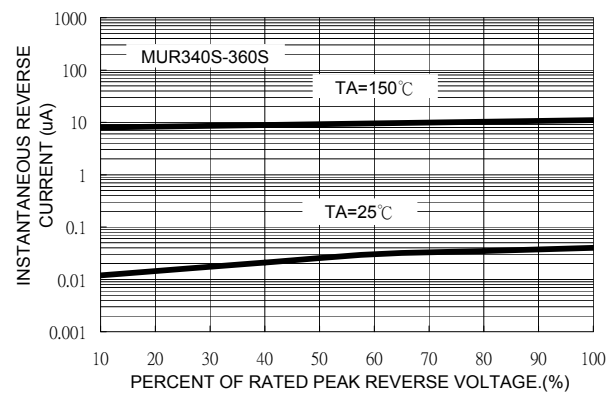


FIG. 7 TYPICAL JUNCTION CAPACITANCE

