

MURS160A

1.0AMP Silicon Ultra Fast Rectifiers

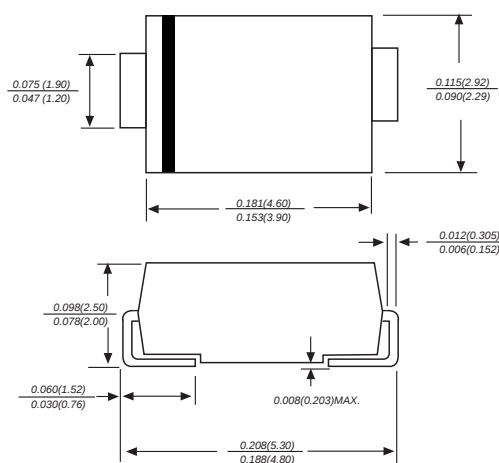
Features

- Low power loss.
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any
- Lead Free: For RoHS/Lead Free Version

DO-214AC/SMA



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

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

For capacitive load derate current by 20%

Type Number	SYMBOL	MURS160A	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Average Rectified Output Current (Note 1) @ $T_L = 125^\circ\text{C}$	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30	A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	3.735	A^2s
Forward Voltage @ $I_F = 1.0\text{A}$	V_{FM}	1.25	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	5.0	μA
At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$		100	
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50	nS
Typical Junction Capacitance (Note 3)	C_J	15	pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	85	$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to + 175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to + 175	$^\circ\text{C}$

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.

3. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

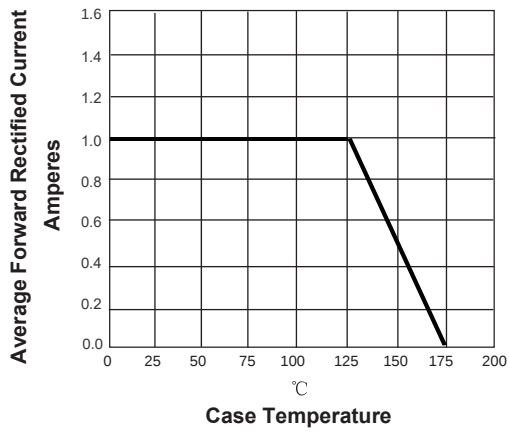


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

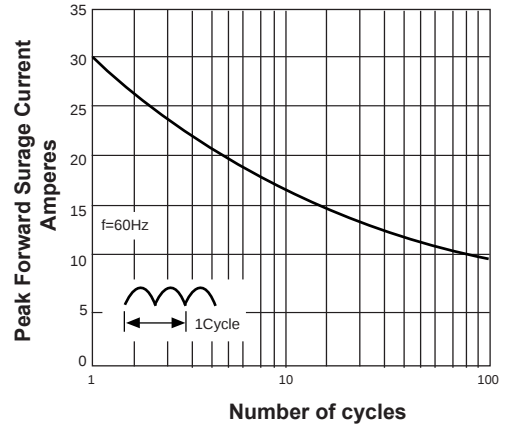


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

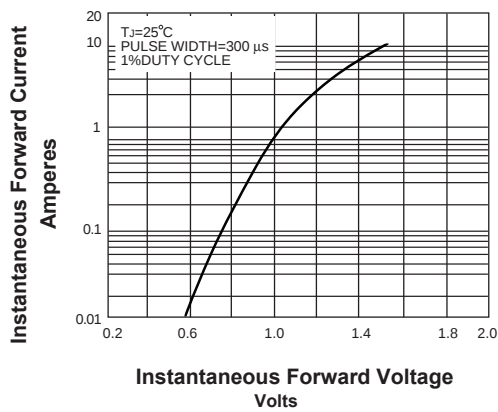


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

