



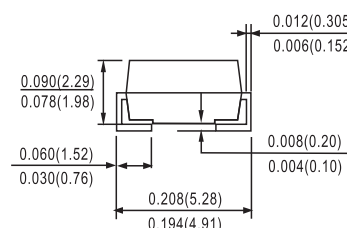
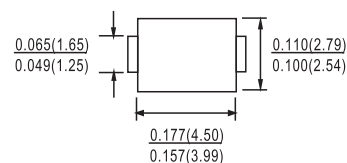
FEATURES

- Small Compact Surface Mountable Package with J-Bend Leads
- Rectangular Package for Automated Handling
- High Temperature Glass Passivated Junction
- Low Forward Voltage Drop (0.74 V Max @ 2.0 A, $T_J = 150^\circ\text{C}$)
- Pb-Free Packages are Available

MECHANICAL DATA

- Case: Epoxy, Molded
- Weight: 70 mg (Approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead and Mounting Surface Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- Polarity: Polarity Band Indicates Cathode Lead
- ESD Protection: Human Body Model > 4000 V (Class 3)
Machine Model > 400 V (Class C)

DO-214AC(SMA)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage MURA205T3 MURA210T3	V_{RRM} V_{RWM} V_R	50 100	V
Average Rectified Forward Current @ $T_L = 155^\circ\text{C}$ @ $T_L = 135^\circ\text{C}$	$I_{F(AV)}$	1.0 2.0	A
Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	50	A
Operating Junction Temperature Range	T_J	-65 to +175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction-to-Lead ($T_L = 25^\circ\text{C}$) (Note 1)	Ψ_{iJL} (Note 2)	24	$^\circ\text{C/W}$
Thermal Resistance, Junction-to-Ambient (Note 1)	$R_{\theta JA}$	216	

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Maximum Instantaneous Forward Voltage (Note 3) ($I_F = 2.0$ A, $T_J = 25^\circ\text{C}$) ($I_F = 2.0$ A, $T_J = 150^\circ\text{C}$)	V_F	0.94 0.74	V
Maximum Instantaneous Reverse Current (Note 3) (Rated DC Voltage, $T_J = 25^\circ\text{C}$) (Rated DC Voltage, $T_J = 150^\circ\text{C}$)	I_R	2.0 50	μA
Maximum Reverse Recovery Time ($I_F = 1.0$ A, $di/dt = 50$ A/ μs)	t_{rr}	30	ns

1. Rating applies when surface mounted on the minimum pad size recommended, PC Board FR-4.
2. In compliance with JEDEC 51, these values (historically represented by $R_{\theta JL}$) are now referenced as Ψ_{iJL} .



RATINGS AND CHARACTERISTIC CURVES

MURA205T3, MURA210T3

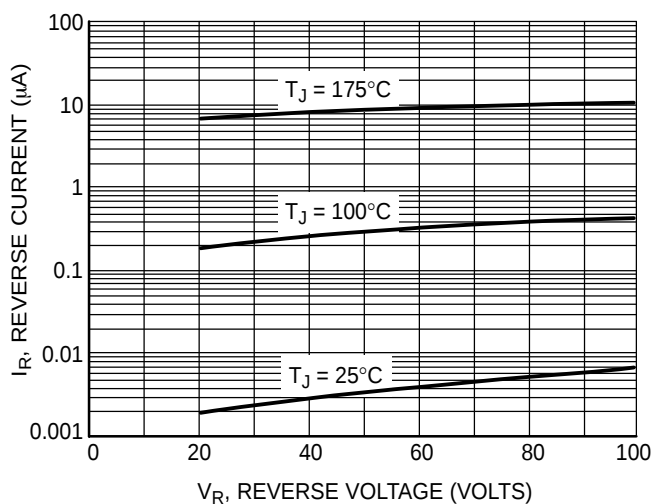


Figure 1. Typical Reverse Current

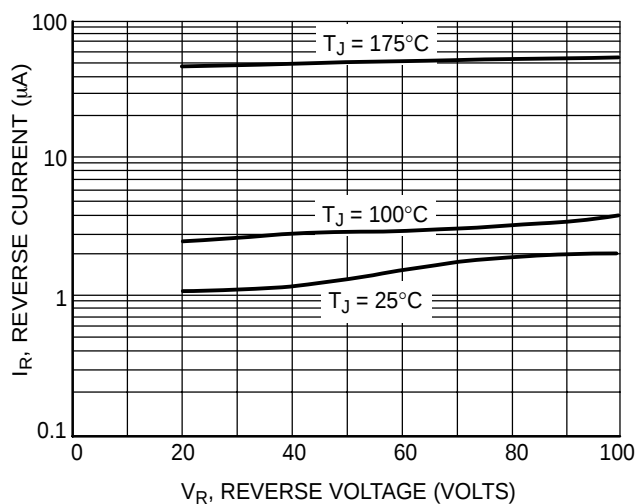


Figure 2. Maximum Reverse Current

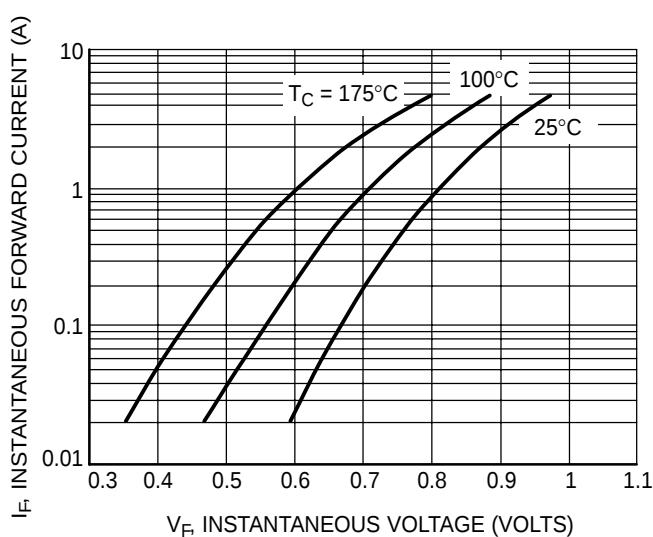


Figure 3. Typical Forward Voltage

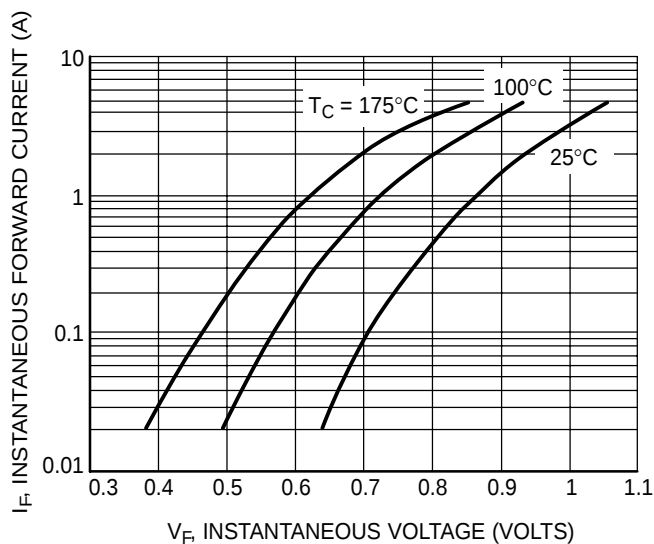


Figure 4. Maximum Forward Voltage

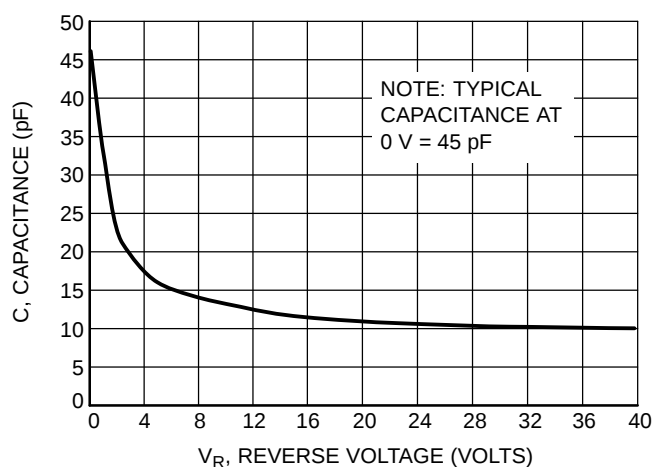


Figure 5. Typical Capacitance

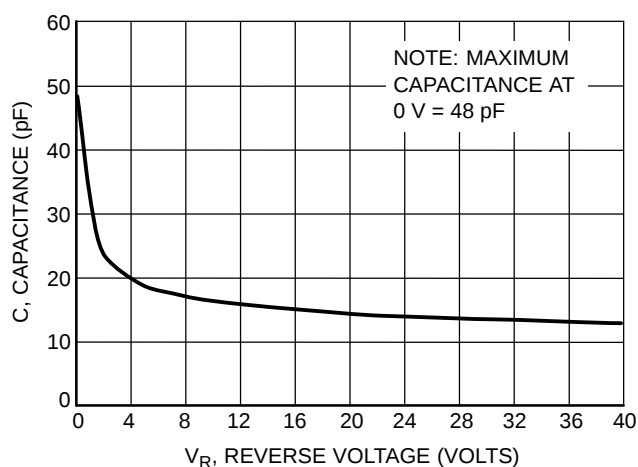


Figure 6. Maximum Capacitance

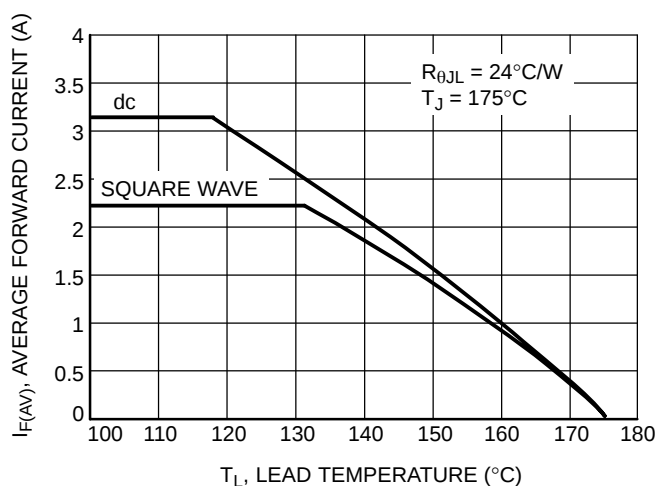


Figure 7. Current Derating, Lead

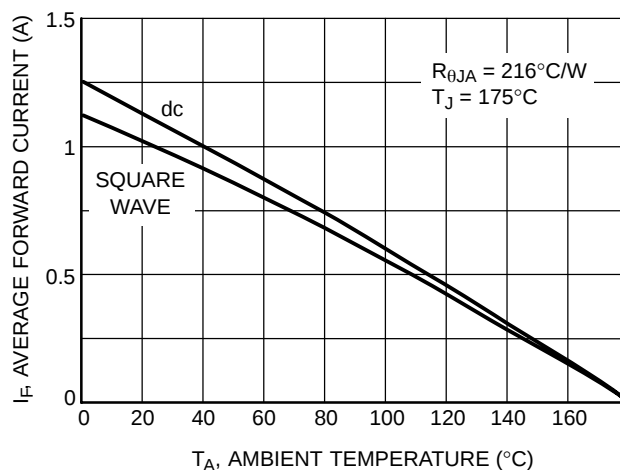


Figure 8. Current Derating, Ambient
(FR-4 Board with Minimum Pad)

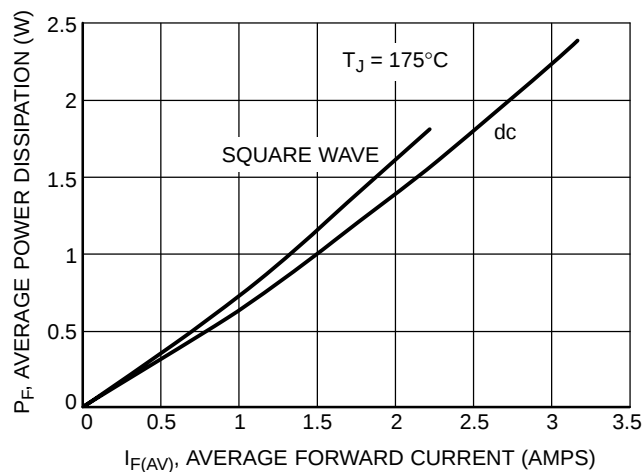


Figure 9. Power Dissipation