



### **FEATURES**

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

#### **MECHANICAL DATA**

\* Epoxy: UL 94V-0 rate flame retardant

\* Lead: Lead solderable per MIL-STD-202,

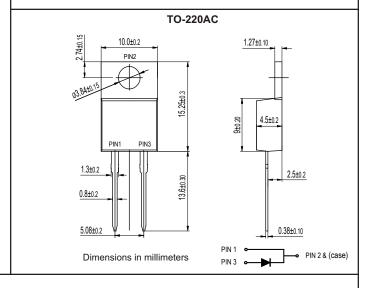
\* Polarity: As Marked \* Mounting position: Any

# \* Case: Molded plastic

method 208 guranteed \* Weight: 1.5 grams

# **VOLTAGE RANGE** 600 Volts **CURRENT**

15.0 Amperes



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwies specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Maximum Recurrent Peak Reverse Voltage  Maximum RMS Voltage  Maximum DC Blocking Voltage  Maximum Average Forward Rectified Current  .375"(9.5mm) Lead Length at Ta=50°C  Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)  Maximum Instantaneous Forward Voltage at 15.0A  Type at 15.0A  Type at 10.0A  Type at 5.0 A  1.2  Maximum DC Reverse Current  Ta=25°C  at Rated DC Blocking Voltage  Ta=100°C  Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance  RØJ-C (Note 3)  Typical Thermal Resistance  RØJ-A (Note 4)  Reverse recovery charge Q ir	UNITS
Maximum DC Blocking Voltage  Maximum Average Forward Rectified Current  .375"(9.5mm) Lead Length at Ta=50°C  Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)  Maximum Instantaneous Forward Voltage at 15.0A  Type at 15.0A  Type at 10.0A  Type at 10.0A  Type at 5.0 A  Maximum DC Reverse Current  Ta=25°C  at Rated DC Blocking Voltage  Ta=100°C  Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance  RØJ-C (Note 3)  Typical Thermal Resistance  RØJ-A (Note 4)  Reverse recovery charge Q rr  15.0  15.0  15.0  15.0  15.0  15.0  15.0  15.0  15.0  15.0	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=50°C  Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)  Maximum Instantaneous Forward Voltage at 15.0A  Type at 15.0A  Type at 10.0A  Type at 5.0 A  1.2  Maximum DC Reverse Current  Ta=25°C  at Rated DC Blocking Voltage  Ta=100°C  Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance  RØJ-C (Note 3)  Typical Thermal Resistance  RØJ-A (Note 4)  Reverse recovery charge Q rr  15.0  15.0  15.0  15.0  15.0  15.0  15.0  15.0	V
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Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)  Maximum Instantaneous Forward Voltage at 15.0A  Type at 15.0A  Type at 10.0A  Type at 5.0 A  Maximum DC Reverse Current  Ta=25°C  at Rated DC Blocking Voltage  Ta=100°C  Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance  RØJ-C (Note 3)  Typical Thermal Resistance  RØJ-A (Note 4)  Reverse recovery charge Q rr  100  100  100  100  100  100  100	
superimposed on rated load (JEDEC method)         200           Maximum Instantaneous Forward Voltage at 15.0A         1.9           Type at 15.0A         1.55           Type at 10.0A         1.4           Type at 5.0 A         1.2           Maximum DC Reverse Current         Ta=25°C         5           at Rated DC Blocking Voltage         Ta=100°C         100           Maximum Reverse Recovery Time (Note 1)         35           Typical Junction Capacitance (Note 2)         65           Typical Thermal Resistance         R0J-C (Note 3)         1.8           Typical Thermal Resistance         R0J-A (Note 4)         50           Reverse recovery charge Q rr         150	А
Maximum Instantaneous Forward Voltage at 15.0A Type at 15.0A Type at 10.0A Type at 5.0 A  Maximum DC Reverse Current Ta=25°C  at Rated DC Blocking Voltage Ta=100°C  Maximum Reverse Recovery Time (Note 1) Typical Junction Capacitance (Note 2)  Typical Thermal Resistance RØJ-C (Note 3) Typical Thermal Resistance RØJ-A (Note 4)  Reverse recovery charge Q rr  1.9  1.55  1.4  1.2  1.00  5  6  1.00	
Type at 15.0A Type at 10.0A Type at 10.0A Type at 5.0 A  Maximum DC Reverse Current Ta=25°C  at Rated DC Blocking Voltage Ta=100°C  Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance R0J-C (Note 3) Typical Thermal Resistance R0J-A (Note 4)  Reverse recovery charge Q rr  1.55  1.4 1.2  1.00  5  6  1.00  1.8 1.8 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	А
Type at 10.0A Type at 5.0 A  Maximum DC Reverse Current Ta=25°C  at Rated DC Blocking Voltage Ta=100°C  Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance RØJ-C (Note 3) Typical Thermal Resistance RØJ-A (Note 4)  Reverse recovery charge Q rr  1.4 1.2  1.00  5  6  1.00  1.8 5  Typical Thermal Resistance RØJ-A (Note 4) 50  Reverse recovery charge Q rr	
Type at 5.0 A  Maximum DC Reverse Current Ta=25°C  at Rated DC Blocking Voltage Ta=100°C  Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance R0J-C (Note 3)  Typical Thermal Resistance R0J-A (Note 4)  Reverse recovery charge Q rr  11.2  100  100  100  100  100  100  10	V
Maximum DC Reverse Current Ta=25°C 5  at Rated DC Blocking Voltage Ta=100°C 100  Maximum Reverse Recovery Time (Note 1) 35  Typical Junction Capacitance (Note 2) 65  Typical Thermal Resistance R0J-C (Note 3) 1.8  Typical Thermal Resistance R0J-A (Note 4) 50  Reverse recovery charge Q rr 150	V
at Rated DC Blocking Voltage Ta=100°C 100  Maximum Reverse Recovery Time (Note 1) 35  Typical Junction Capacitance (Note 2) 65  Typical Thermal Resistance R0J-C (Note 3) 1.8  Typical Thermal Resistance R0J-A (Note 4) 50  Reverse recovery charge Q rr 150	
Maximum Reverse Recovery Time (Note 1)  Typical Junction Capacitance (Note 2)  Typical Thermal Resistance R0J-C (Note 3)  Typical Thermal Resistance R0J-A (Note 4)  Reverse recovery charge Q rr  150	μА
Typical Junction Capacitance (Note 2) 65  Typical Thermal Resistance R0J-C (Note 3) 1.8  Typical Thermal Resistance R0J-A (Note 4) 50  Reverse recovery charge Q rr 150	μА
Typical Thermal Resistance R0J-C (Note 3) 1.8 Typical Thermal Resistance R0J-A (Note 4) 50 Reverse recovery charge Q rr 150	nS
Typical Thermal Resistance R0J-A (Note 4) 50  Reverse recovery charge Q r 150	pF
Reverse recovery charge Q rr 150	°C/W
, , ,	°C/W
	nC
Operating and Storage Temperature Range TJ, Tsre -65—+175	°C

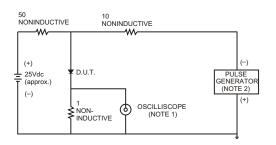
- 1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
- 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
- 3. Between junction and case
- 4. Between junction and Air

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#### RATING AND CHARACTERISTIC CURVES (MUR1560)

#### FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

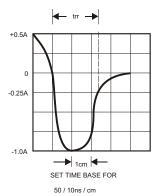


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

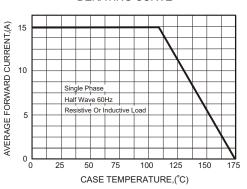


FIG.3-TYPICAL FORWARD

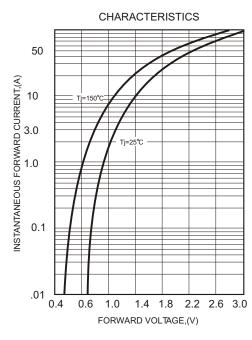


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

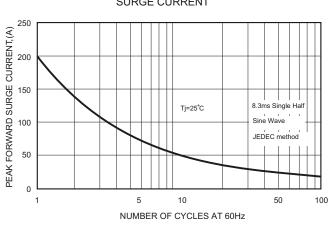


FIG.4-TYPICAL REVERSE

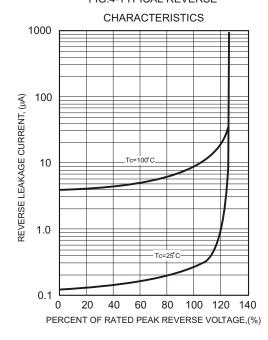


FIG.6-TYPICAL JUNCTION CAPACITANCE

