

FEATURES

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

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 1.5 grams

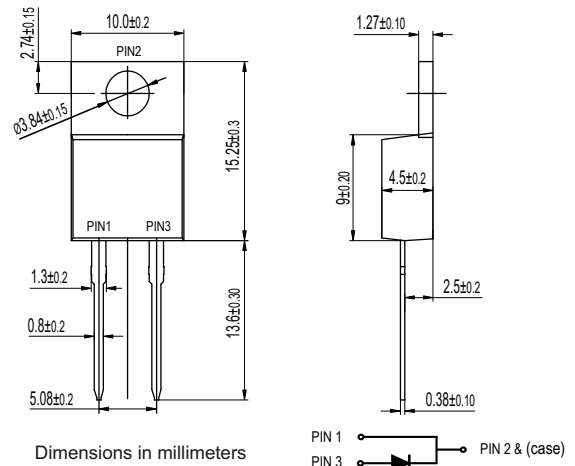
VOLTAGE RANGE

1200 Volts

CURRENT

8.0 Amperes

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

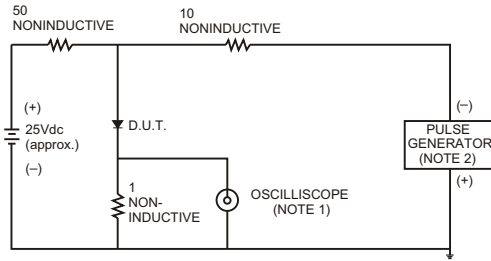
TYPE NUMBER	MUR8120	UNITS
Maximum Recurrent Peak Reverse Voltage	1200	V
Maximum RMS Voltage	840	V
Maximum DC Blocking Voltage	1200	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=50°C	8.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150	A
Maximum Instantaneous Forward Voltage at 8.0A Type at 8.0A Type at 5.0A	2.6 2.1 1.95	V
Maximum DC Reverse Current Ta=25°C	5	μA
at Rated DC Blocking Voltage Ta=100°C	100	μA
Maximum Reverse Recovery Time (Note 1)	60	nS
Typical Junction Capacitance (Note 2)	65	pF
Typical Thermal Resistance RθJ-C (Note 3)	1.8	°C/W
Typical Thermal Resistance RθJ-A (Note 4)	50	°C/W
Reverse recovery charge Q _{rr}	120	nC
Operating and Storage Temperature Range T _J , T _{stg}	-65 — +175	°C

NOTES:

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

RATING AND CHARACTERISTIC CURVES (MUR8120)

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

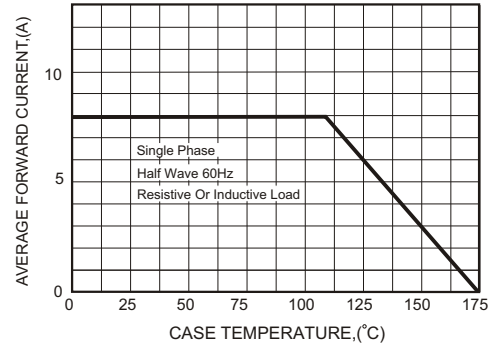


FIG.3-TYPICAL FORWARD CHARACTERISTICS

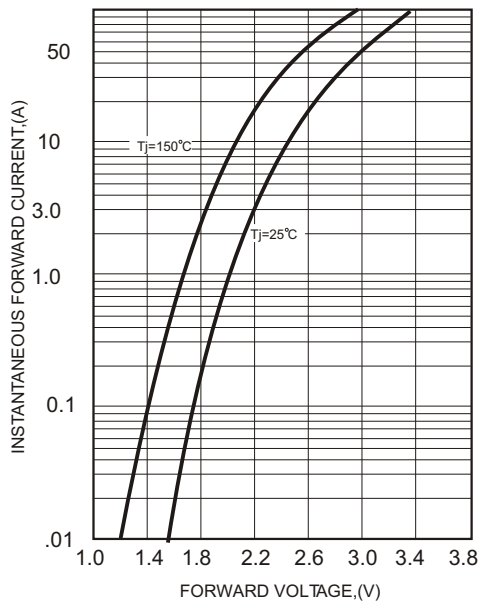


FIG.4-TYPICAL REVERSE CHARACTERISTICS

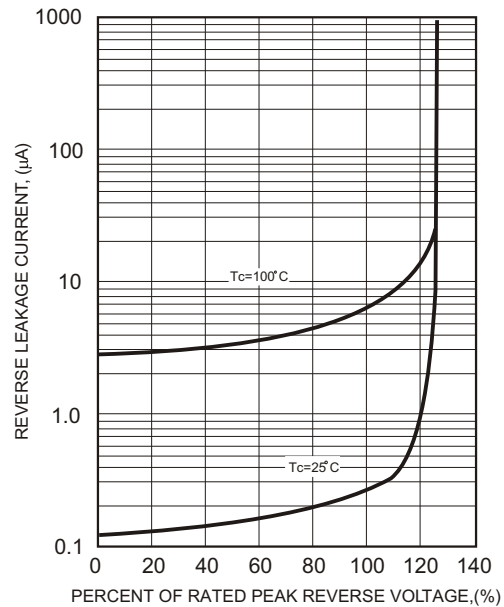


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

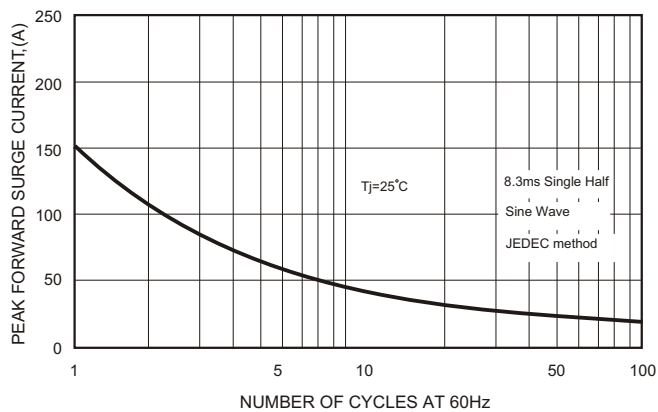


FIG.6-TYPICAL JUNCTION CAPACITANCE

