

SMR2500FA THRU SMR4000FA



HIGH VOLTAGE FAST RECOVERY RECTIFIERS



FEATURES

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

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Plated axial leads, solderable per MIL-STD-750, method 2026 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

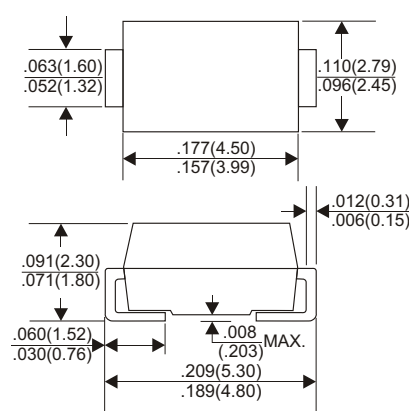
VOLTAGE RANGE

2500 to 4000 Volts

CURRENT

300m Ampere

DO-214AC(SMA)



Dimensions in inches and (millimeters)

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	SMR2500FA	SMR4000FA	UNITS
Maximum Recurrent Peak Reverse Voltage	2500	4000	V
Maximum RMS Voltage	1750	2800	V
Maximum DC Blocking Voltage	2500	4000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=50°C	300		mA
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	25		A
Maximum Instantaneous Forward Voltage at 0.2A D.C.	3.5		V
Maximum DC Reverse Current Ta=25°C	5.0		μA
at Rated DC Blocking Voltage Ta=100°C	50		μA
Maximum Reverse Recovery Time (Note 1)	500		nS
Typical Junction Capacitance (Note 2)	15		pF
Operating and Storage Temperature Range Tj, Tstg	-65 — +150		°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.

RATING AND CHARACTERISTIC CURVES (SMR2500FA THRU SMR4000FA)

FIG.1 - TYPICAL REVERSE

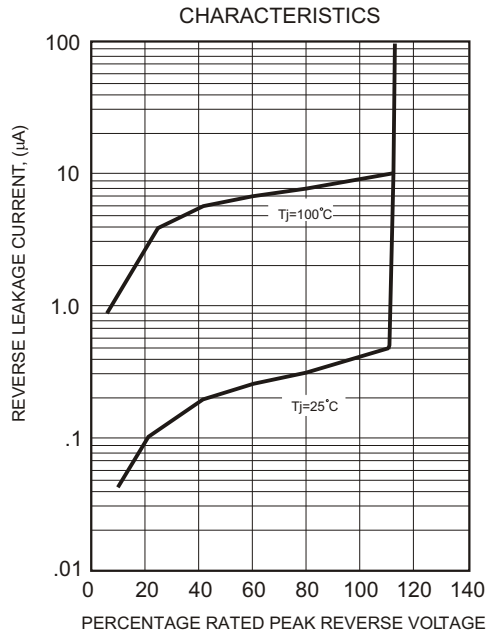


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

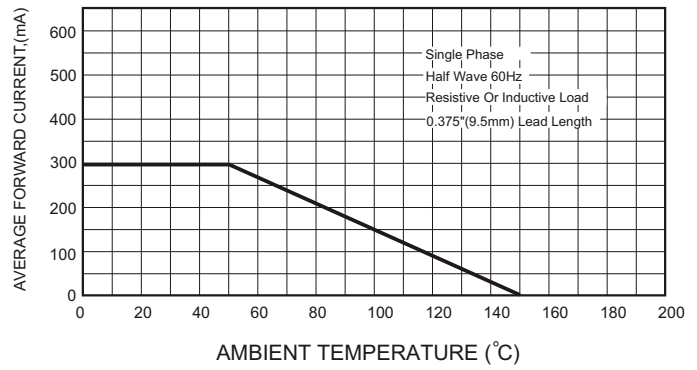


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

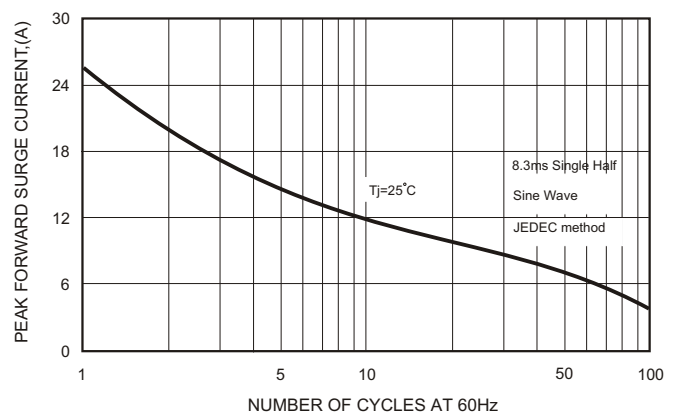
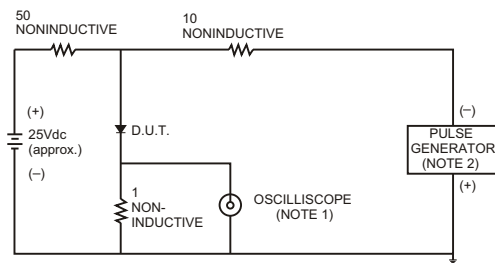


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE

RECOVERY TIME CHARACTERISTICS



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

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

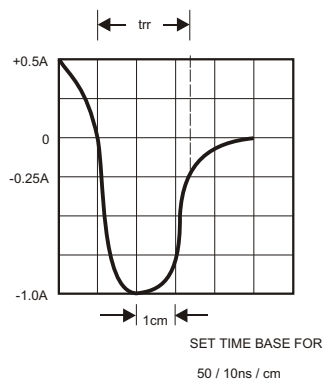


FIG.5-TYPICAL JUNCTION CAPACITANCE

