

SMU11A THRU SMU16A



1.0 AMP SURFACE MOUNT SUPER FAST RECTIFIERS



FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Super fast recovery time for high speed switching

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.063 gram

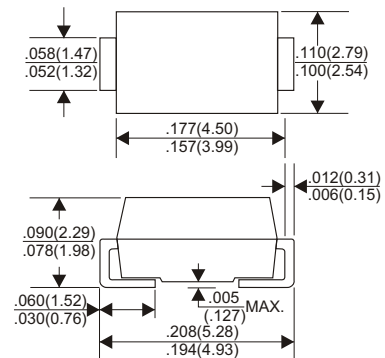
VOLTAGE RANGE

50 to 400 Volts

CURRENT

1.0 Ampere

DO-214AC(SMA)



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	SMU11A	SMU12A	SMU13A	SMU14A	SMU15A	SMU16A	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	V
Maximum RMS Voltage	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	V
Maximum Average Forward Rectified Current at T _L =110°C	1.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30						A
Maximum Instantaneous Forward Voltage at 1.0A	0.95			1.25			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0			500			μA
Maximum Reverse Recovery Time (Note 1)	35						nS
Typical Junction Capacitance (Note 2)	10						pF
Operating and Storage Temperature Range T _J , T _{STG}	-65 — +150						°C

NOTES:

- Reverse Recovery Time test condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
- Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (SMU11A THRU SMU16A)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

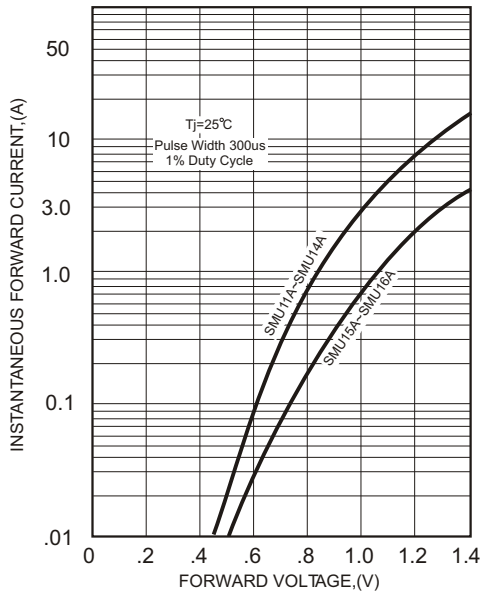


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

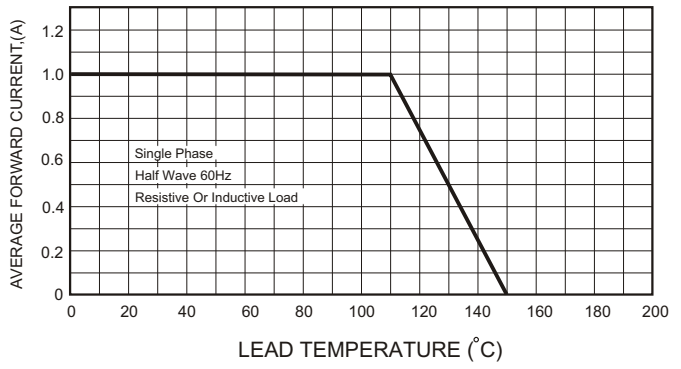


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

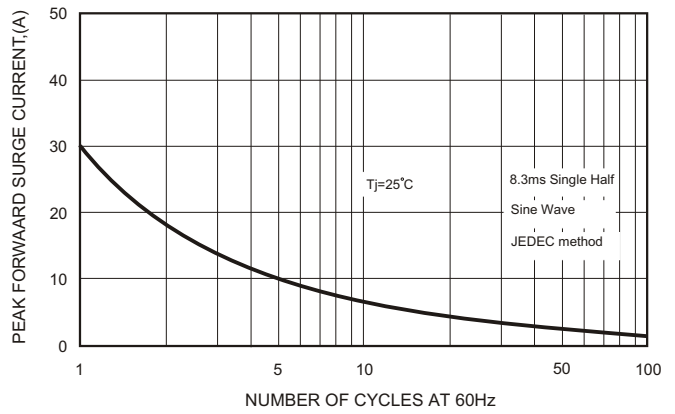
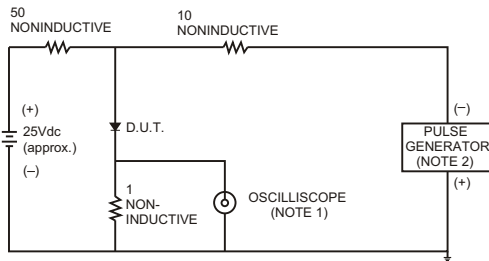


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



- NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

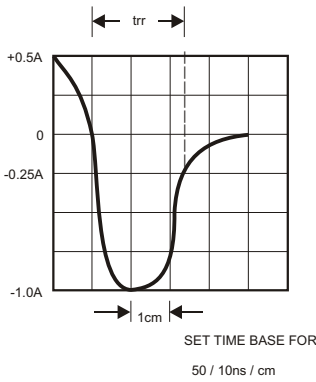


FIG.5-TYPICAL JUNCTION CAPACITANCE

