DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

S3A THRU S3M

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SILICON RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 3.0 Amperes*

FEATURES

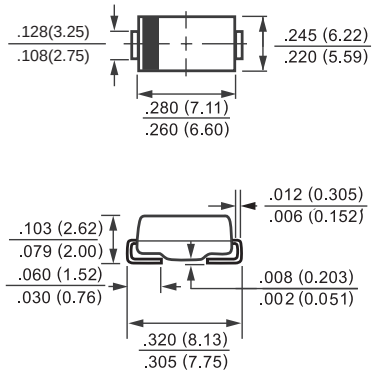
* Ideal for surface mounted applications
* Low leakage current
* Glass passivated junction

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
*Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
* Polarity: As marked
* Mounting position: Any
* Weight: 0.24 gram



SMC (DO-214AB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		SYMBOL	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current T_A = 75°C		I_O	3.0							Amps
Peak Forward Surge Current I_{FM}(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	100							Amps
Maximum Forward Voltage at 3.0A DC		V_F	1.2							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	5.0							uAmps
	@T_A = 125°C		250							
Maximum Reverse Recovery Time (Note 3)		trr	2.5							uSec
Typical Thermal Resistance (Note 2)		RθJL	10							°C/W
Typical Junction Capacitance (Note 1)		C_J	60							pF
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to + 175							°C

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0VDC
2. Thermal Resistance (Junction to Ambient), 0.4x0.4in² (10X10mm²)copper pads to each terminal.
3. Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

NEXT BACK EXIT

RATING AND CHARACTERISTIC CURVES (S3A THRU S3M)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

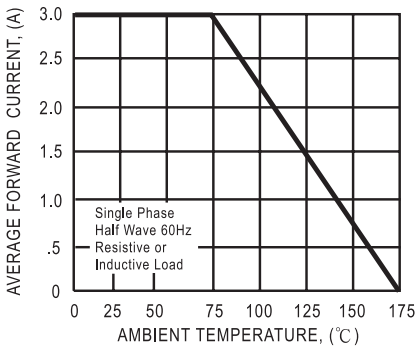


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

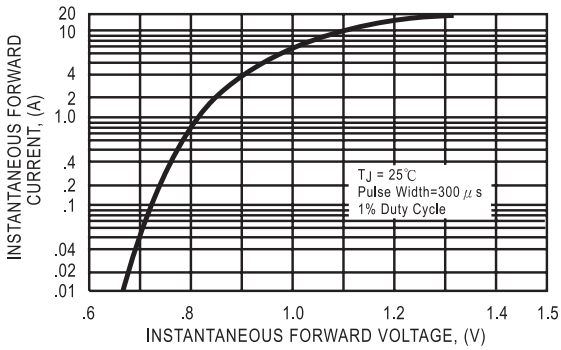


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

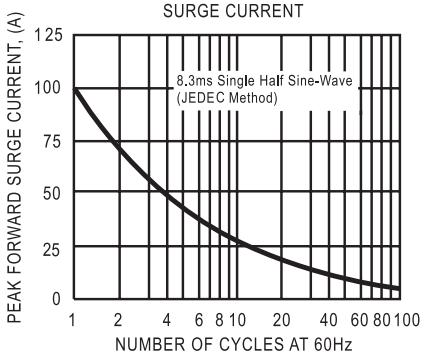


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

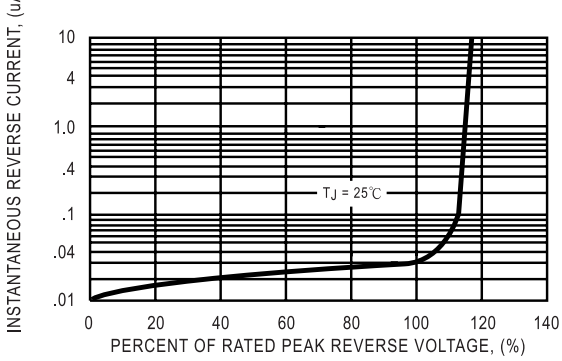


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

