

S3A - S3M

PRV : 50 - 1000 Volts

Io : 3.0 Amperes

FEATURES :

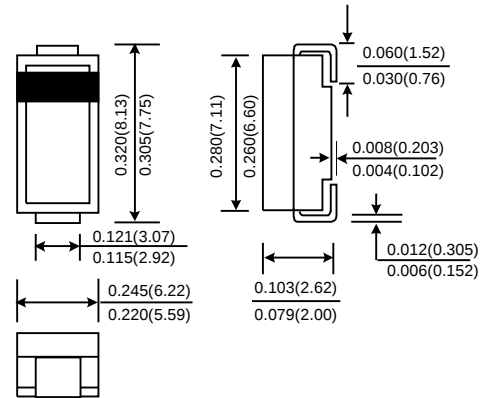
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMC Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.26 gram

SURFACE MOUNT RECTIFIERS

SMC (DO-214AB)



Dimensions in inches and (millimeter)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

RATING	SYMBOL	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_a = 75\text{ }^{\circ}\text{C}$	I_F	3.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Maximum Forward Voltage at $I_F = 3.0\text{ Amps.}$	V_F	1.0							V
Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$	I_R	5.0							μA
at rated DC Blocking Voltage $T_a = 100\text{ }^{\circ}\text{C}$	$I_{R(H)}$	50							μA
Typical Junction Capacitance (Note1)	C_J	50							pF
Junction Temperature Range	T_J	- 65 to + 150							$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150							$^{\circ}\text{C}$

Note :

(1) Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

RATING AND CHARACTERISTIC CURVES (S3A - S3M)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

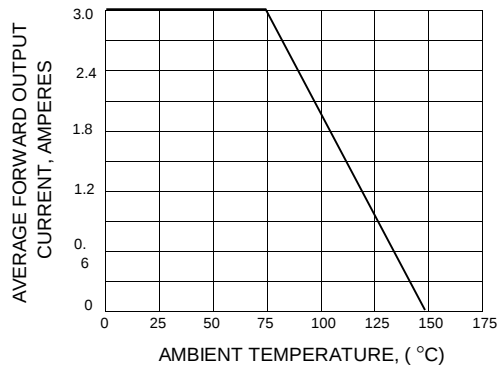


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

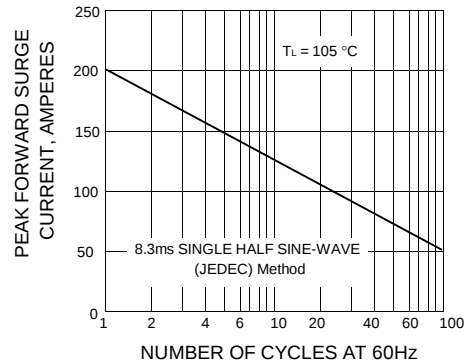


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

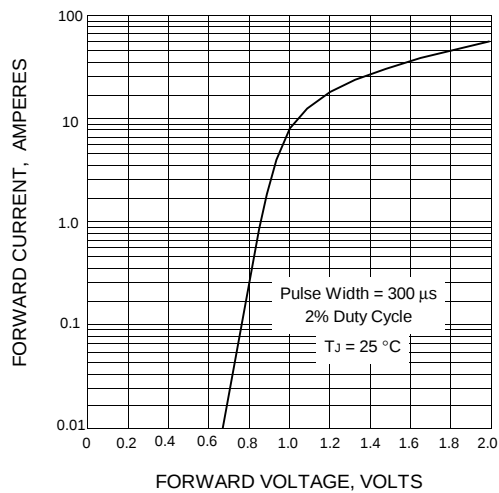


FIG.4 - TYPICAL JUNCTION CAPACITANCE

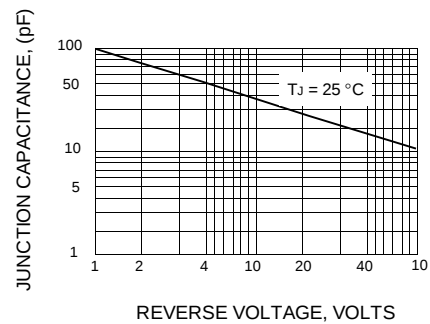


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

