



SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

S5A THRU S5M	VOLTAGE RANGE	50 to 1000 Volts
	CURRENT	5.0 Ampere

FEATURES

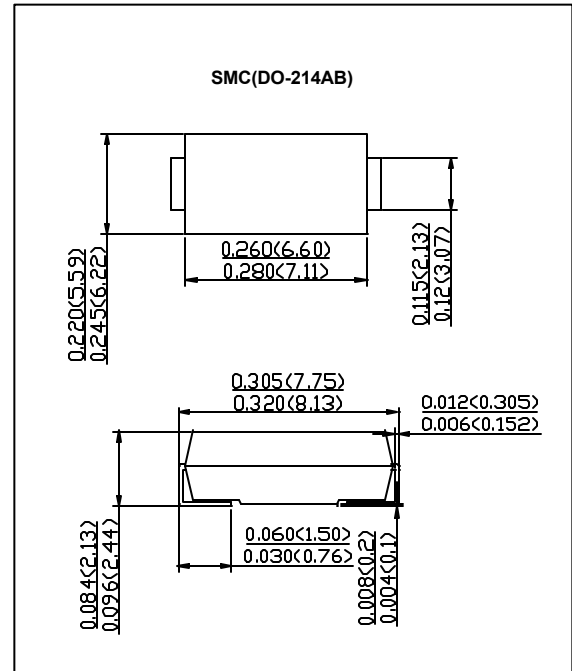
- Glass passivated die Construction
- Low Forward Voltage Drop and High Current Capability
- Surge Overload Rating to 100A Peak
- Ideally Suited for Automated Assembly

MECHANICAL DATA

- Case: Molded Plastic
- Case Material-UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solder Plated Terminal – Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.21 grams (approx.)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



	SYMBOLS	S5A	S5B	S5D	S5G	S5J	S5K	S5M	UNIT
Maximum Repetitive 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 Rectified Output Current, At $T_J = 75^\circ\text{C}$	$I_{(AV)}$	5.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	100							Amps
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	1.15							Volts
Maximum DC Reverse Current at Rated $T_A = 25^\circ\text{C}$	I_R	10							μA
DC Blocking Voltage per element $T_A = 125^\circ\text{C}$		250							
Typical Total Capacitance (Note 1)	C_T	40							pF
Typical Thermal Resistance, Junction to Terminal (Note 2)	$R_{\theta JT}$	10							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	(-65 to +150)							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-65 to +150)							$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal Resistance Junction to Terminal, unit mounted on PC board with 5.0mm² (0.013mm thick) copper pads as Heat Sink.



SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

S5A THRU S5M

VOLTAGE RANGE
CURRENT

50 to 1000 Volts
5.0 Ampere

RATINGS AND CHARACTERISTIC CURVES S5A THRU S5M

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

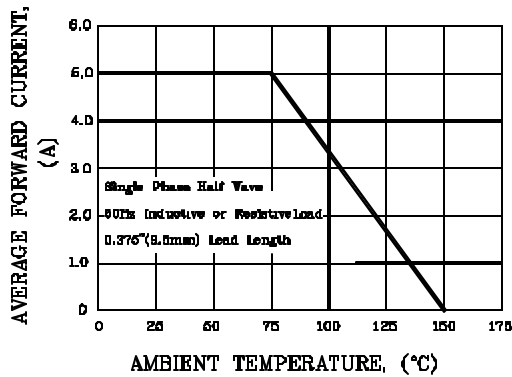


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

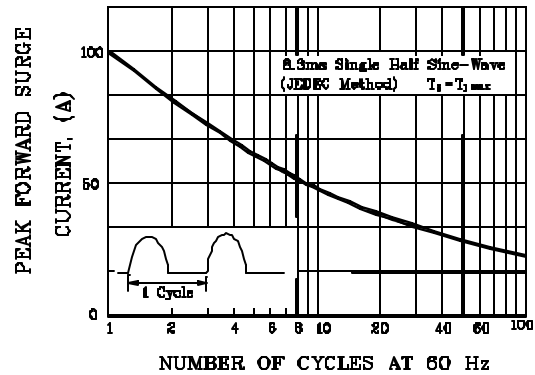


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

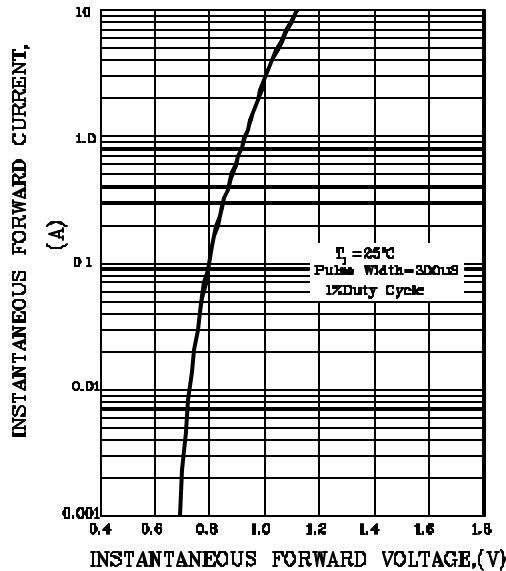


FIG.4-TYPICAL REVERSE CHARACTERISTICS

