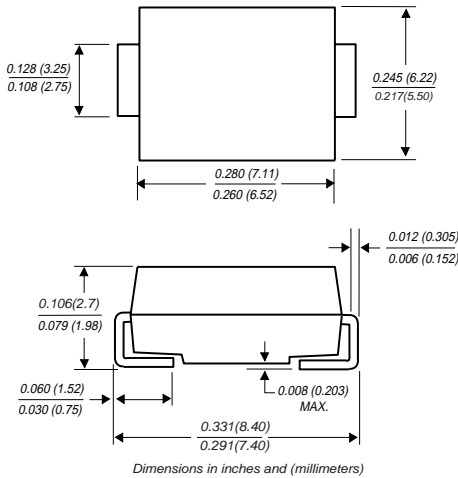




S5A THRU S5M GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 5.0 Amperes

DO-214AB



FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.22 gram

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 current derate by 20%.

	SYMBOLS	S5A	S5B	S5D	S5G	S5J	S5K	S5M	UNITS
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 average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							Amps
Maximum instantaneous forward voltage at 5.0A	V_F	1.2							Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	10.0 400							μA
Typical junction capacitance (NOTE 1)	C_J	80							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	15							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +155							$^\circ\text{C}$

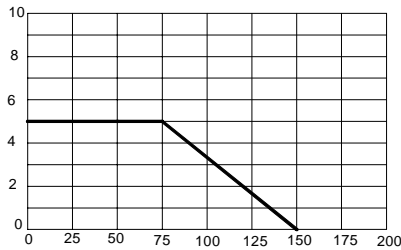
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



RATINGS AND CHARACTERISTIC CURVES S5A THRU S5M

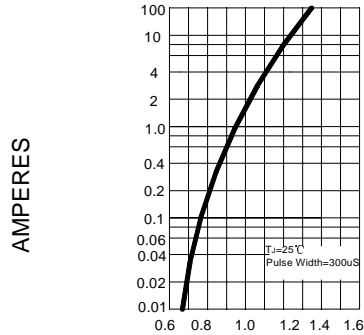
AVERAGE FORWARD RECTIFIED CURRENT
AMPERES

FIG.1 – FORWARD DERATING CURVE



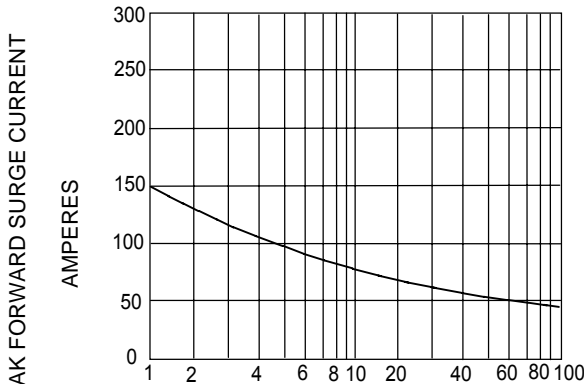
AMBIENT TEMPERATURE, °C

FIG.2 – TYPICAL FORWARD CHARACTERISTICS



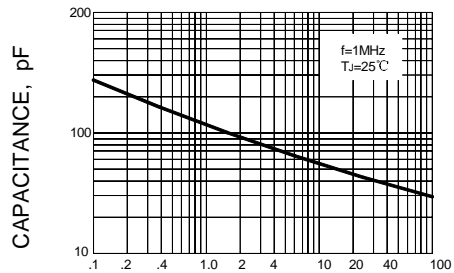
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 – MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT



NUMBER OF CYCLES AT 60Hz

FIG.4 – TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLTS