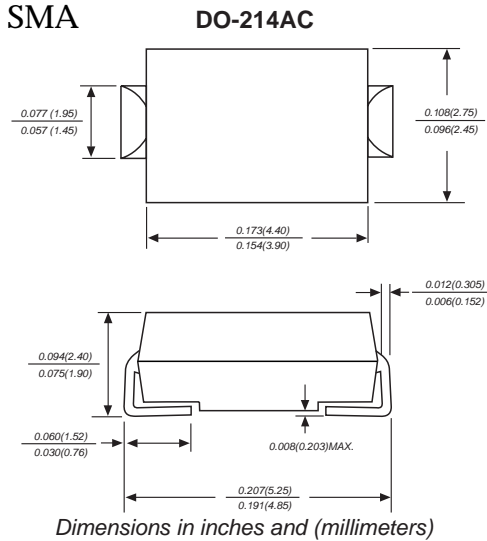


S1Y

SUFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 1600 Volts Forward Current - 1.0Ampere



FEATURES

Ideal for surface mouted applications
 Low reverse leakage
 Metallurgically bonded construction
 High temperature soldering guaranteed:
 260°C/10 seconds, 0.375" (9.5mm) lead length,
 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic body
Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Mounting Position : Any
Weight : 0.00243ounce, 0.069 grams

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	S1Y	UNITS
	MARK	S1Y	
Maximum repetitive peak reverse voltage	V_{RRM}	1600	VOLTS
Maximum RMS voltage	V_{RMS}	1120	VOLTS
Maximum DC blocking voltage	V_{DC}	1600	VOLTS
Maximum average forward rectified current at $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.0	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$	I_{FSM}	25	Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.1	Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 50.0	μA
Typical junction capacitance (NOTE 1)	C_J	4	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	55	K/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

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

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

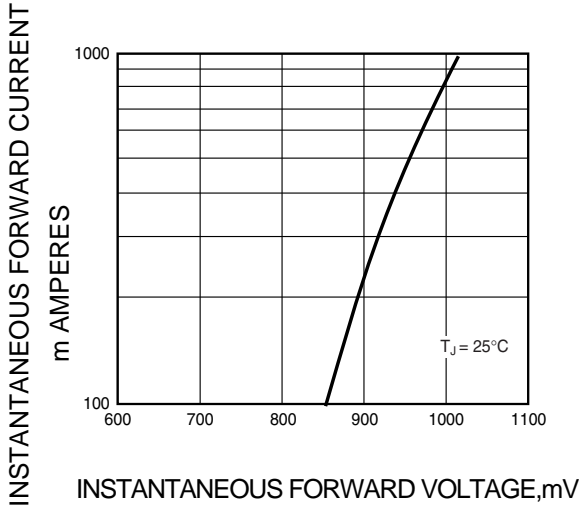


FIG.2 – TYPICAL JUNCTION CAPACITANCE

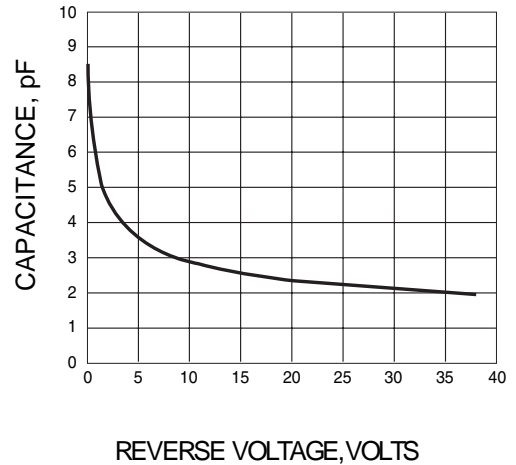


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

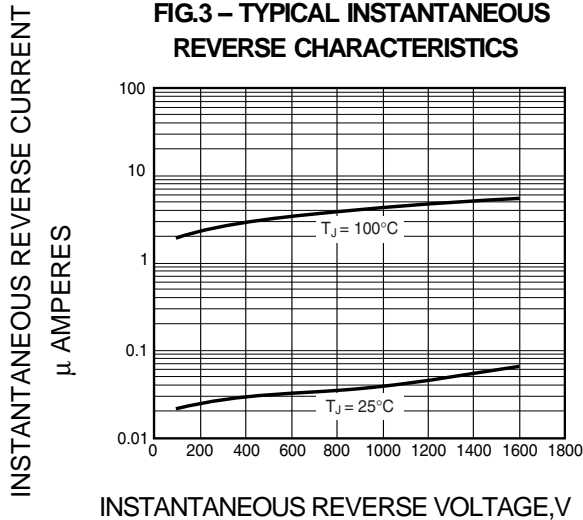


FIG.4 – FORWARD DERATING CURVE

