S5AC THRU S5MC

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

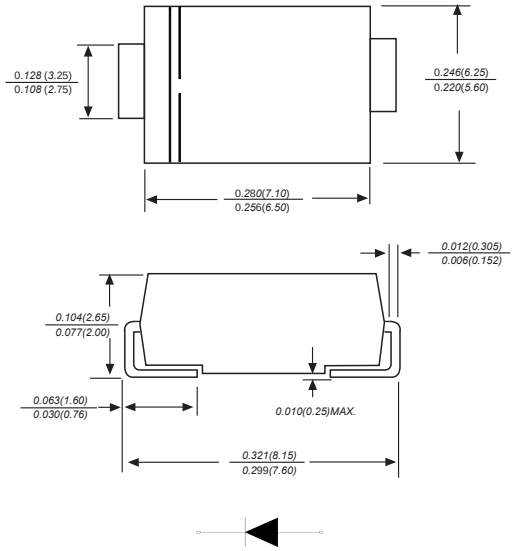
SURFACE MOUNT GENERAL RECTIFIER

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 °C/10 seconds at terminals

RoHS COMPLIANT

DO-214AB/SMC



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-214AB/SMC molded plastic body
Terminals : Solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.0077 ounce, 0.22 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%.

Parameter / Marking Code	SYMBOLS	HY S5AC	HY S5BC	HY S5DC	HY S5GC	HY S5JC	HY S5KC	HY S5MC	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 rectified current	$I_{(AV)}$	5.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	120							A
Maximum instantaneous forward voltage at 5.0A	V_F	1.0							V
Maximum DC reverse current T_A=25℃ / at rated DC blocking voltage T_A=125℃	I_R	5 / 100							μA
Typical junction capacitance (NOTE 1)	C_J	50							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$ / $R_{\theta JC}$	35 / 13							℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							℃

*Pulse test: Pulse width 200 μsec, Duty cycle 2%

Note: 1. Measured at 1 MHz and applied reverse voltage of 4 V D.C.
2.P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Characterisitics

Fig.1 Forward Current Derating Curve

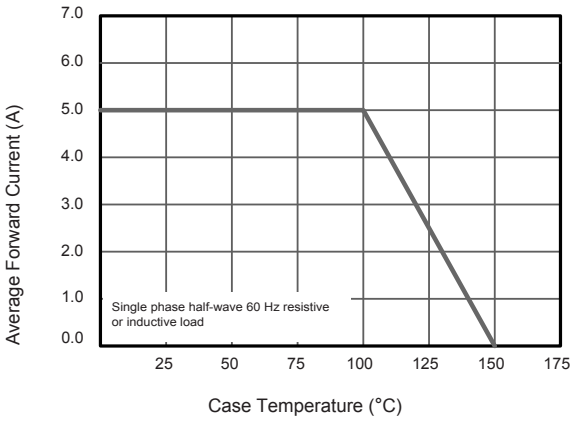


Fig.2 Typical Reverse Characteristics

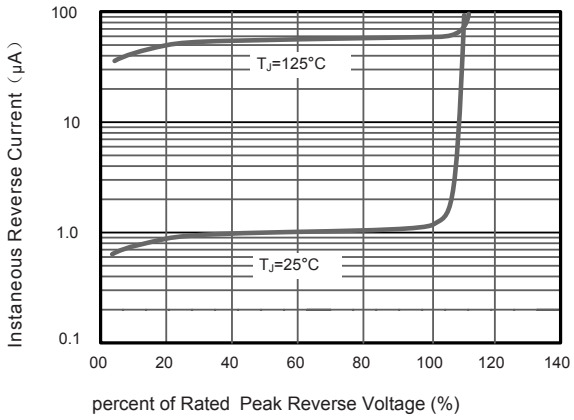


Fig.3 Typical Forward Characteristic

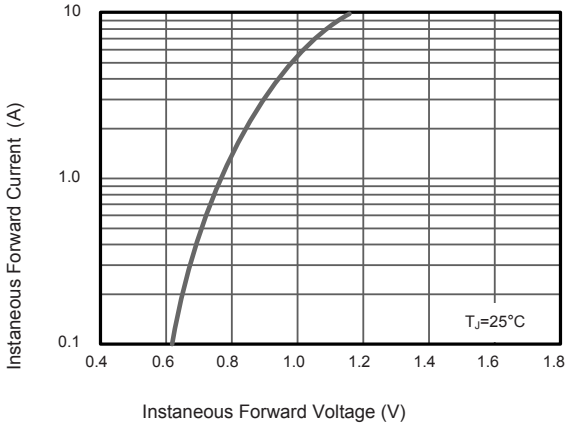


Fig.4 Typical Junction Capacitance

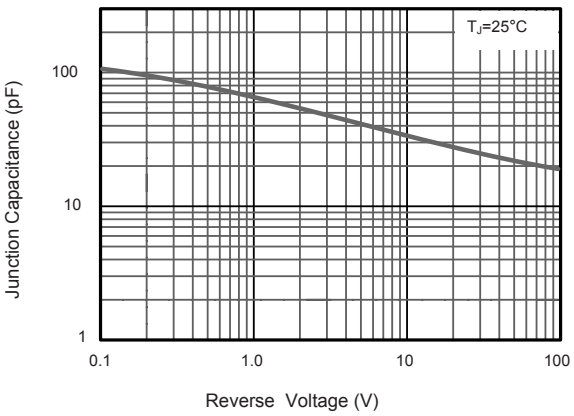
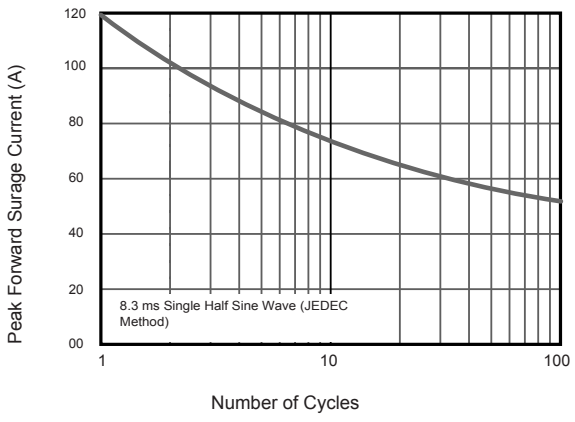
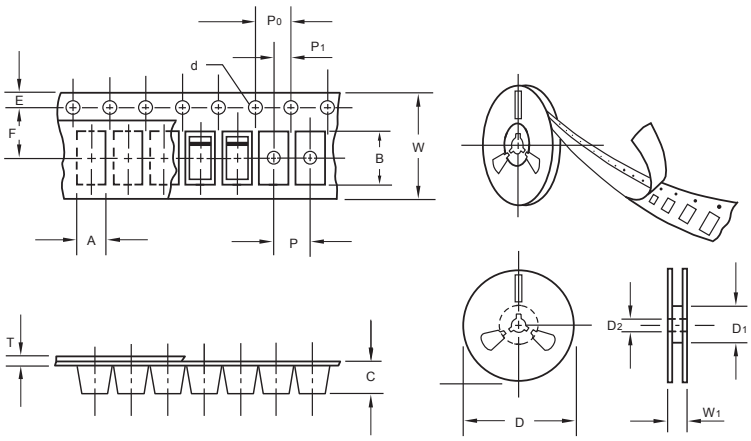


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current



The curve above is for reference only.

Packing information



unit:mm

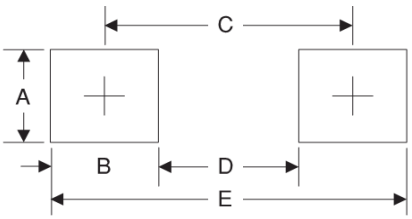
Item	Symbol	Tolerance	SMC
Carrier width	A	0.1	6.15
Carrier length	B	0.1	8.41
Carrier depth	C	0.1	2.42
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D_1	min	50.00
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	8.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	16.00
Reel width	W_1	1.0	16.50

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (mm)	BOX (pcs)	INNER BOX (mm)	REEL DIA, (mm)	CARTON SIZE (mm)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SMC	13"	3,000	4.0	6000	190*190*41	330	365*365*340	42000	14.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	4.3	0.170
B	4.1	0.160
C	7.9	0.311
D	3.8	0.150
E	12	0.472