

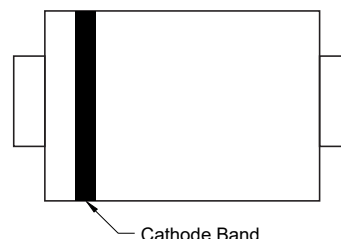
SURFACE MOUNT FAST RECOVERY RECTIFIERS

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

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

DO-214AB/SMC



Cathode Band

Mechanical Data

Case : DO-214AB/SMC molded plastic body

Terminals :Solderable per MIL-STD-750,Method2026

Approx. Weight : 0.22grams / 0.0077oz

Equivalent circuit



Absolute 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%.

Parameter	Symbols	RS5AC	RS5BC	RS5DC	RS5GC	RS5JC	RS5KC	RS5MC	Units
Marking Code		RS5A	RS5B	RS5D	RS5G	RS5J	RS5K	RS5M	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	IF(AV)	5.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	IFSM	120							A
Maximum Instantaneous Forward Voltage at 5.0 A	VF	1.3							V
Maximum DC Reverse Current Ta = 25 °C Ta =125 °C	IR	5 100							μA
Maximum Reverse Recovery Time (note1)	trr	150				250	500		ns
Typical Junction Capacitance at VR=4V,f=1MHz	Cj	50							pF
Typical Thermal Resistance (note2)	RθJA RθJC	35 13							°C/W
Operating Junction and Storage Temperature Range	Tj, Tstg	-55 ~ +150							°C

Note: 1. Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.

2.P.C.B. mounted with 2.0 X 2.0" (5.0 X 5.0 cm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

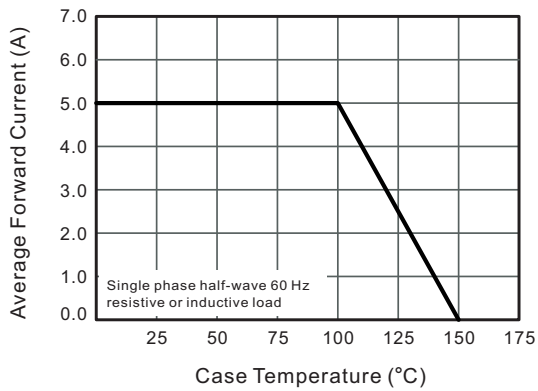


Fig.2 Typical Reverse Characteristics

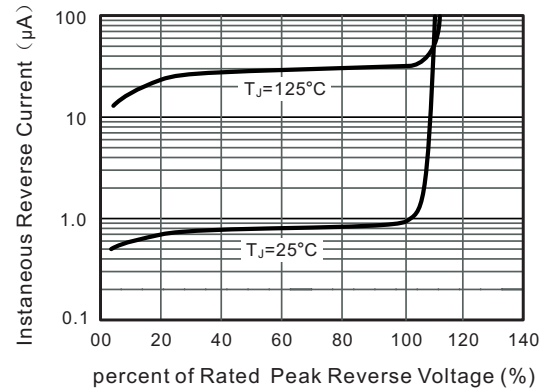


Fig.3 Typical Instantaneous Forward Characteristics

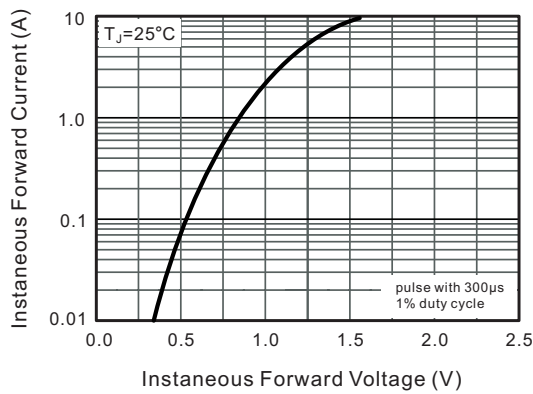


Fig.4 Typical Junction Capacitance

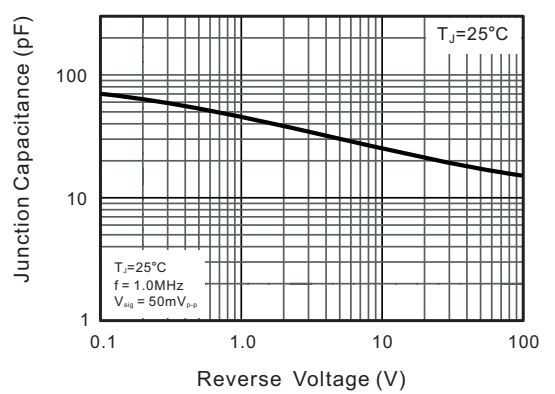
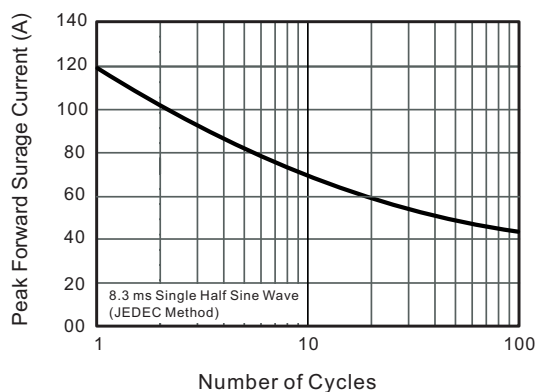
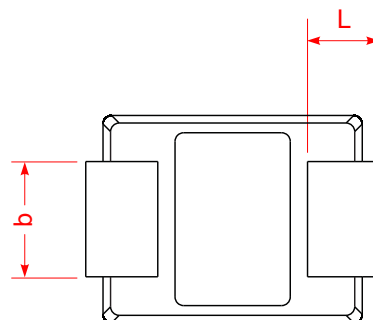
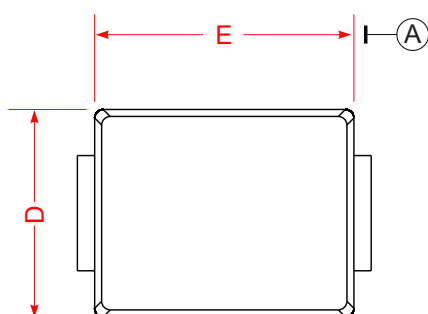
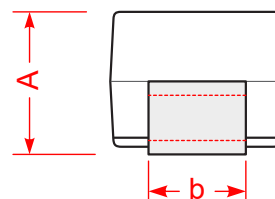
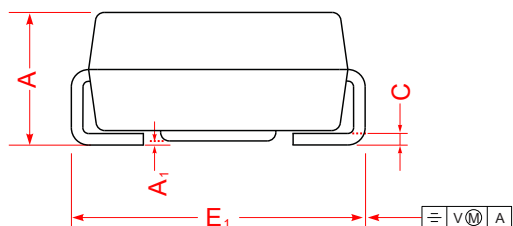


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

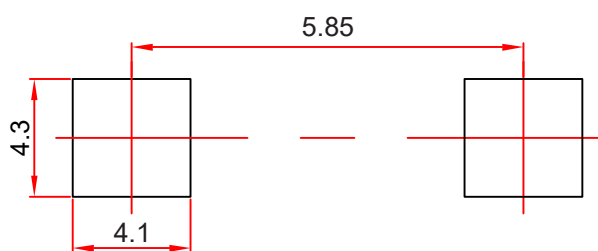


DO-214AB/SMC Package Outline Dimensions



Symbol	imensions In Millimeters		imensions In Inches	
	Min	Max	Min	Max
A	2.00	2.62	0.078	0.103
C	0.15	0.31	0.006	0.012
D	5.60	6.20	0.220	0.244
E	6.50	7.00	0.256	0.276
E ₁	7.60	8.00	0.229	0.315
b	2.75	3.25	0.108	0.128
L	0.90	1.60	0.035	0.063
A ₁	0.2 REF		0.008 REF	

DO-214AB/SMC Suggested Pad Layout



- Note:
1. Controlling dimension: in/millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.