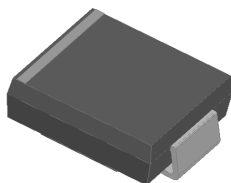


Surface Mount Fast Recovery Rectifier

DO-214AB (SMC)

RS5XC



Cathode  Anode

Marking:RS5X

(X stands for D, or G, or J, or K, or M)

Features

- Low forward voltage drop
- Low leakage
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability.

Mechanical Data

- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbols	RS5DC	RS5GC	RS5JC	RS5KC	RS5MC	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	140	280	420	560	800	V
Maximum DC Blocking Voltage	VDC	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I(AV)	5.0					A
Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A	Trr	150		250	500		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	120					A
I ² t rating for fusing (1ms< t < 8.3ms)	I ² t	10.3					A ² S
Maximum Forward Voltage at 5.0A and 25°C	VF	1.3					V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=100 °C	IR	5 100					μA
Typical Junction Capacitance (Note1)	Cj	50					pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150					°C
Typical thermal resistance (Note 2)	RθJ-A RθJ-C	35 13					°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Fig.1 Forward Current Derating Curve

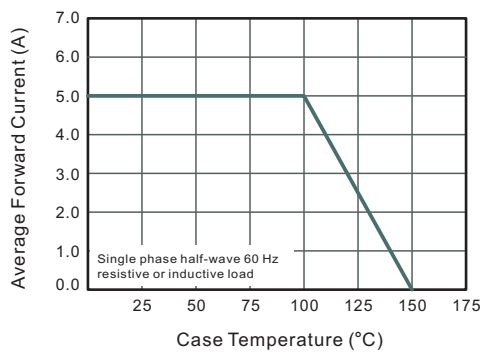


Fig.2 Typical Reverse Characteristics

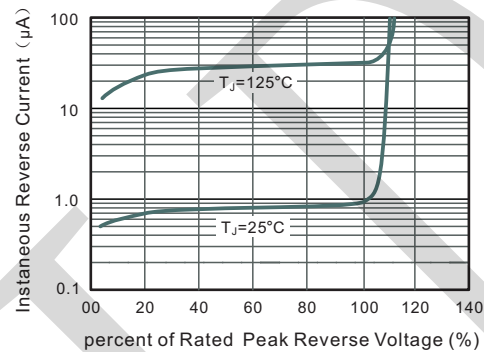


Fig.3 Typical Instantaneous Forward Characteristics

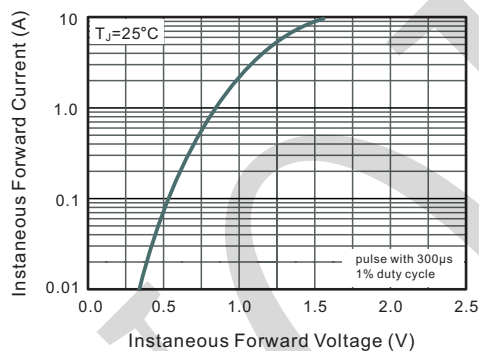


Fig.4 Typical Junction Capacitance

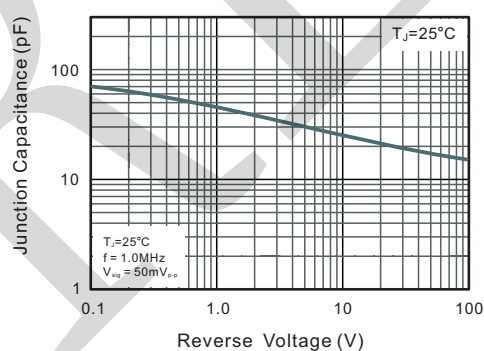
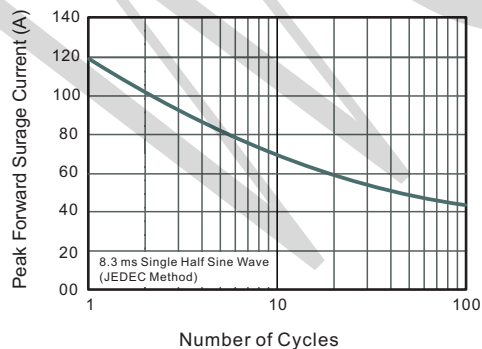
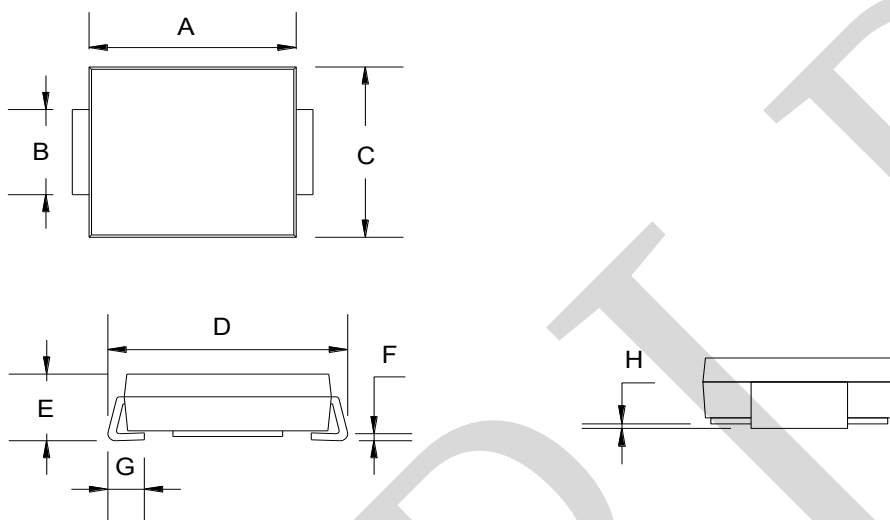


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE DIMENSIONS

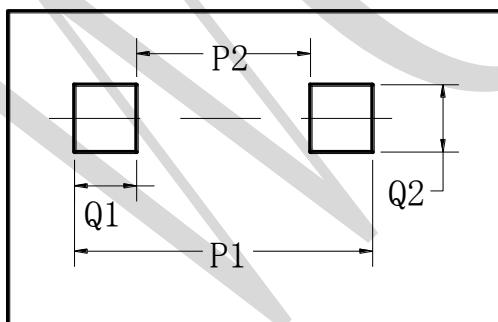
DO-214AB(SMC)



SMC Mechanical Data

UNIT		A	B	C	D	E	F	G	H
mm	max	7.1	3.3	6.25	8.1	2.6	0.30	1.5	0.2
	min	6.6	2.8	5.6	7.7	2.0	0.15	0.75	0.1
mil	max	279.5	129.9	246.1	318.9	102.3	11.8	59.1	7.87
	min	259.8	110.2	220.5	303.1	78.7	5.90	29.5	3.93

SMC Suggested Pad Layout



UNIT		P1	P2	Q1	Q2
mm	Typ	9.9	3.85	3.0	3.8
mil	Typ	389.7	151.5	118.1	149.6