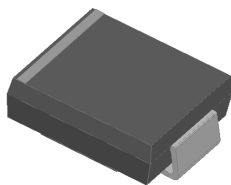


Surface Mount Fast Recovery Rectifier

SMC
RS3MC



Cathode  Anode

Features

- Low forward voltage drop
- Low leakage current
- 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	RS3MC		Units
Maximum Repetitive Peak Reverse Voltage		VRRM	1000		V
Maximum RMS voltage		VRMS	700		V
Maximum DC Blocking Voltage		VDC	1000		V
Maximum Average Forward Rectified Current		I(AV)	3.0		A
Reverse Recovery Time. IF=0.5A,IR=1A,IRR=0.25A		Trr	500		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		IFSM	90		A
I ² t rating for fusing (1ms< t < 8.3ms)		I ² t	33.6		A ² S
Instantaneous Forward Voltage per Diode@TA=25 °C		VF	Typ	Max	V
	IF=1.5A		1.10	--	
	IF=3A		1.15	1.30	
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C		IR	5 100		μA
Operating and Storage Temperature Range		Tj, Tstg	-55 ~ +150		°C
Typical thermal resistance (Note 1)		RθJ-A	35		°C/W
		RθJ-C	13		

Note: 1. 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

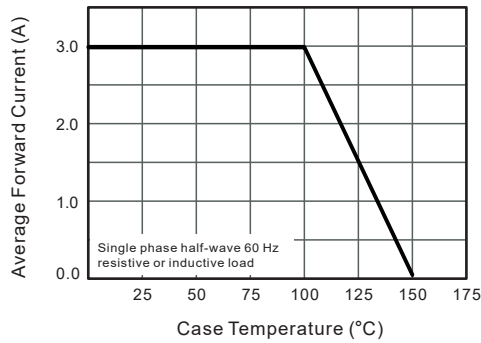


Fig.2 Typical Reverse Characteristics

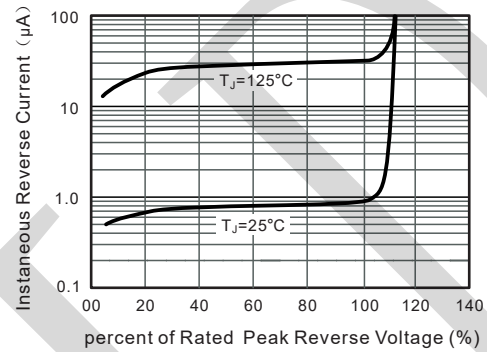


Fig.3 Typical Instantaneous Forward Characteristics

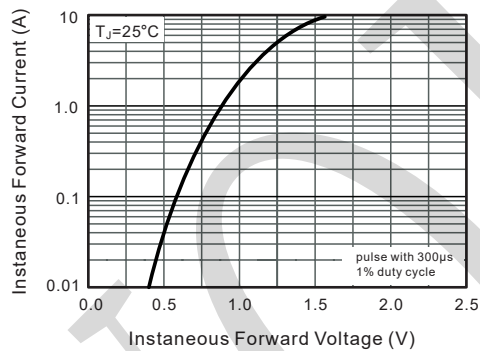
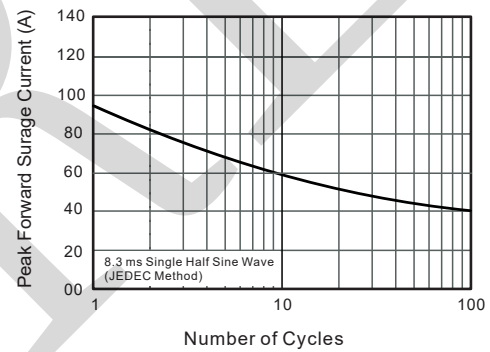
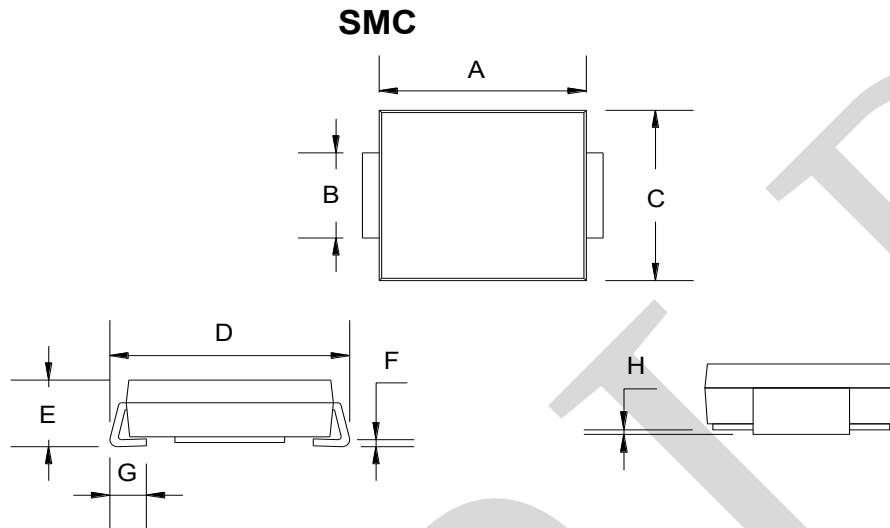


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



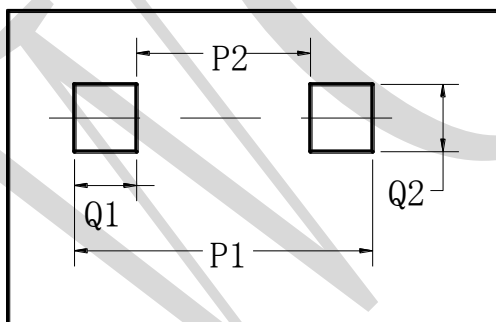
PACKAGE OUTLINE DIMENSIONS



SMC Mechanical Data

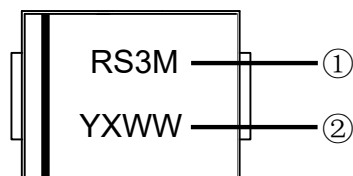
UNIT		A	B	C	D	E	F	G	H
mm	max	7.1	3.3	6.25	8.1	2.6	0.30	1.5	0.2
	min	6.6	2.8	5.6	7.7	2.0	0.15	0.75	0.1
mil	max	279.5	129.9	246.1	318.9	102.3	11.8	59.1	7.87
	min	259.8	110.2	220.5	303.1	78.7	5.90	29.5	3.93

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

Marking Information



① Product model : RS3M

② PDC information:

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)