

# RS5A THUR RS5M

## RS5A THUR RS5M Fast Surface Mount Rectifiers

### General description

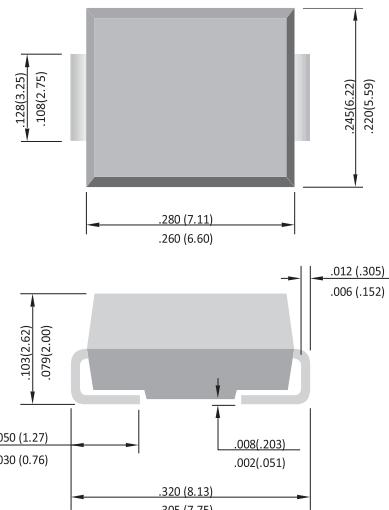
Fast Surface Mount Rectifiers

Reverse Voltage: 50 to 1000V

Forward Current: 5.0A

SMC/DO214AB package

### SMC/DO-214AB



Unit: inch (mm)

### MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750 Method 2026
- Polarity: Indicated by cathode band.
- Weight: 0.25 g / 0.0077oz

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## Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbols	RS5A	RS5B	RS5D	RS5G	RS5J	RS5K	RS5M	Units		
Marking Code	Mark	RS5A	RS5B	RS5D	RS5G	RS5J	RS5K	RS5M	N/A		
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	$I_{F(AV)}$	5						A			
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	120						A			
Maximum Forward Voltage at 3 A	$V_F$	1.3						A			
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 125^\circ C$	$I_R$	5 100						$\mu A$			
Typical Junction Capacitance at $V_R=4V, f=1MHz$	$C_J$	50						pF			
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$	150			250		500	ns			
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	35 13						$^\circ C/W$			
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 ~ +150						$^\circ C$			

Note: 1.Reverse recovery condition  $IF=0.5A, IR=1.0A, Irr=0.25A$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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## RATING AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

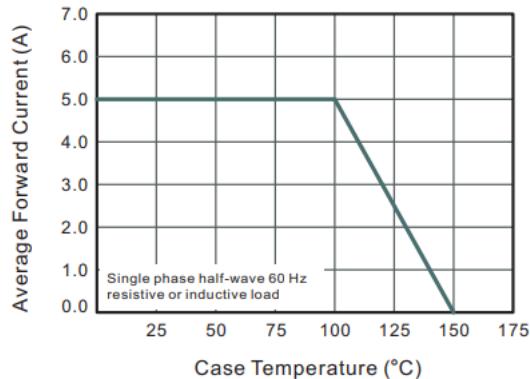


Fig.2 Typical Reverse Characteristics

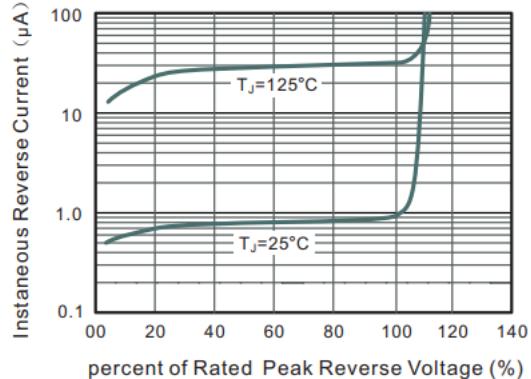


Fig.3 Typical Instantaneous Forward Characteristics

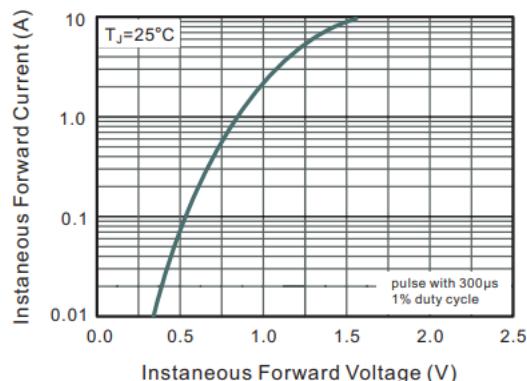


Fig.4 Typical Junction Capacitance

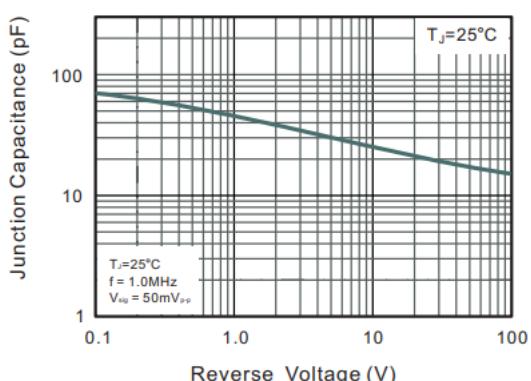
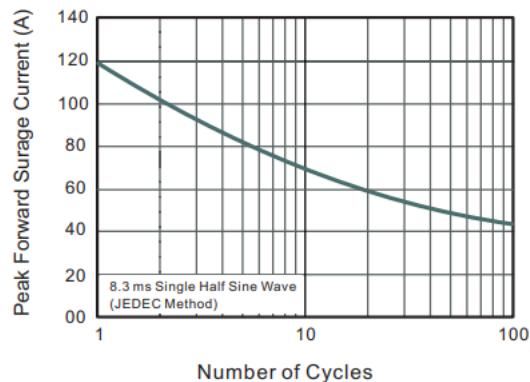


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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