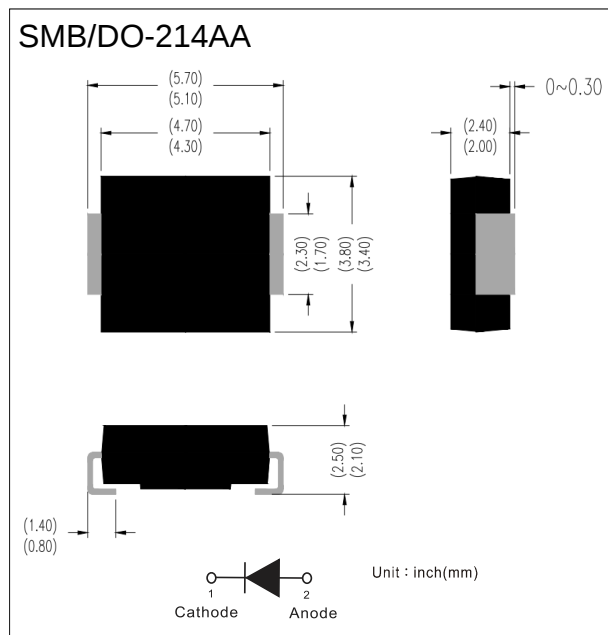


■ Features

- Glass passivated junction chip
- Ideal for automated placement
- Fast switching for high efficiency
- Comply with RoHS standard, halogen-free

■ Mechanical Data

- package:SMB/DO-214AA
- Polarity: Indicated by cathode band
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any



■ Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	RS3D	RS3G	RS3J	RS3K	RS3M	UNIT
Repetitive peak reverse voltage		V _{RRM}	200	400	600	800	1000	V
Reverse voltage, total rms value		V _{R(RMS)}	140	280	420	560	700	V
DC blocking voltage		V _{DC}	200	400	600	800	1000	V
Forward current		I _F	3					A
Surge peak forward current single half sine-wave superimposed on rated load per diode	8.3 ms at T _A = 25°C	I _{FSM}	80					A
	1.0 ms at T _A = 25°C		224					A
Junction temperature		T _J	-55 to +150					°C
Storage temperature		T _{STG}	-55 to +150					°C

■ Thermal Performance($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-lead thermal resistance per diode	$R_{\theta JL}$	20	$^{\circ}\text{C/W}$
Junction-to-ambient thermal resistance per diode	$R_{\theta JA}$	78	$^{\circ}\text{C/W}$
Junction-to-case thermal resistance per diode	$R_{\theta JC}$	26	$^{\circ}\text{C/W}$

Note: Units mounted on PCB (10mm x 10mm Cu pad test board)

■ Electrical Specifications ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER		CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode ⁽¹⁾	RS3D to RS3G	I _F = 1.5A, T _J = 25°C	V _F	0.94	-	V
		I _F = 3A, T _J = 25°C		1.02	1.3	V
		I _F = 1.5A, T _J = 125°C		0.78	-	V
		I _F = 3A, T _J =125°C		0.87	1.17	V
	RS3J	I _F = 1.5A, T _J = 25°C	V _F	0.99	-	V
		I _F = 3A, T _J = 25°C		1.10	1.3	V
		I _F = 1.5A, T _J = 125°C		0.80	-	V
		I _F = 3A, T _J = 125°C		0.90	1.16	V
	RS3K to RS3M	I _F = 1.5A, T _J = 25°C	V _F	1.03	-	V
		I _F = 3A, T _J = 25°C		1.13	1.3	V
		I _F = 1.5A, T _J = 125°C		0.83	-	V
		I _F = 3A, T _J = 125°C		0.94	1.14	V
Reverse current @ rated V _R per diode ⁽²⁾		T _J = 25°C	I _R	-	5	μA
		T _J = 125°C		-	150	μA
Reverse recovery time	RS3D to RS3G	I _F =0.5A,I _R =1.0A, I _{rr} =0.25A	t _{rr}	-	150	ns
	RS3J			-	250	ns
	RS3K to RS3M			-	500	ns
Junction capacitance per diode		1 MHz, V _R =4.0V	C _J	50	-	pF

Notes:

(1) Pulse test with $PW=0.3\text{ ms}$

(2) Pulse test with $PW=30\text{ms}$

■ Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

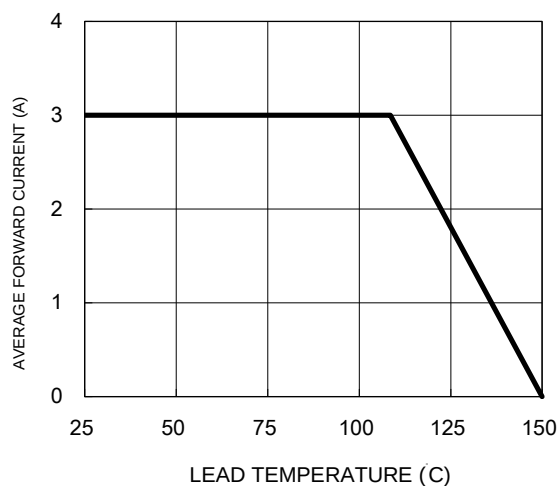


Fig.2 Typical Junction Capacitance

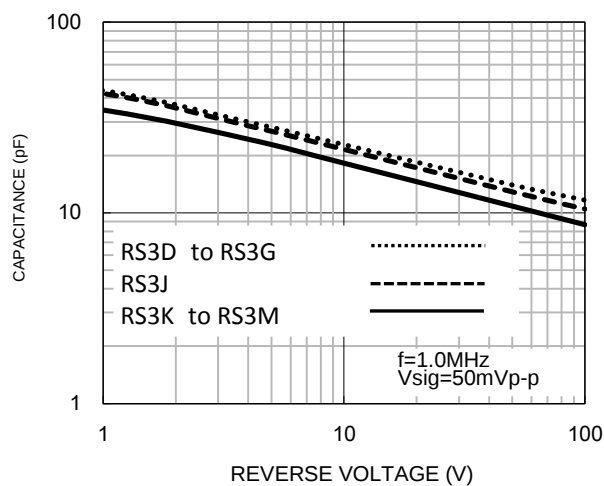




Fig.3 Typical Reverse Characteristics

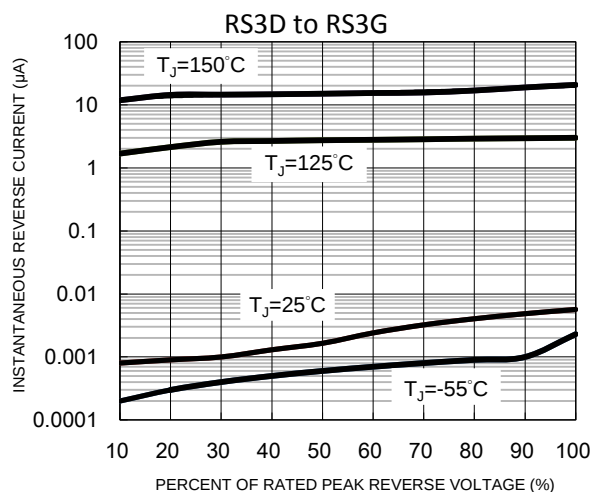


Fig.4 Typical Forward Characteristics

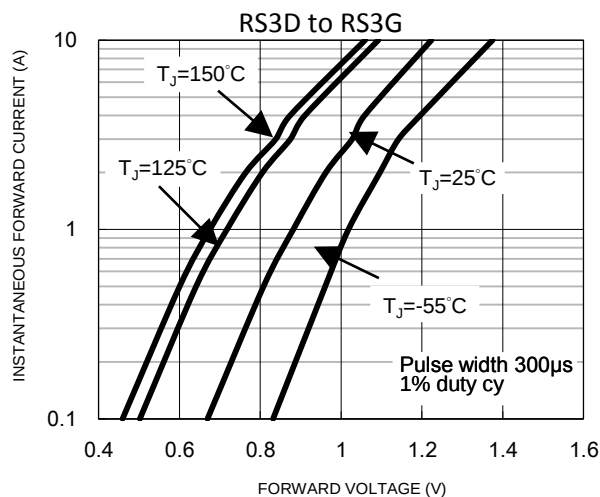


Fig.5 Typical Reverse Characteristics

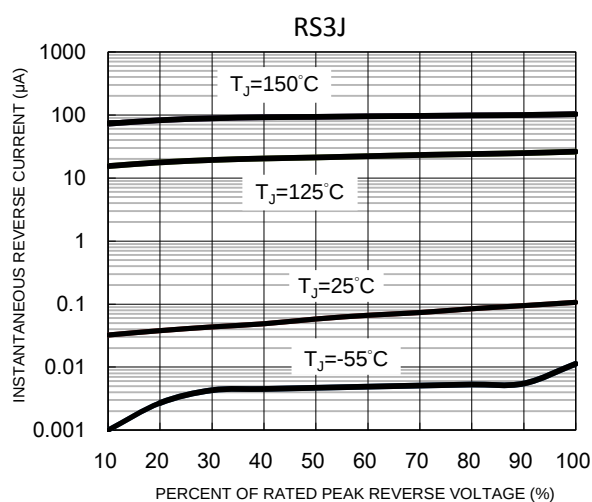


Fig.6 Typical Forward Characteristics

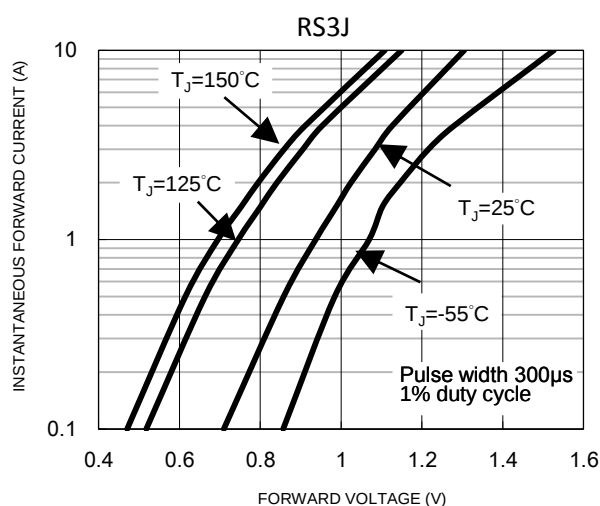


Fig.7 Typical Reverse Characteristics

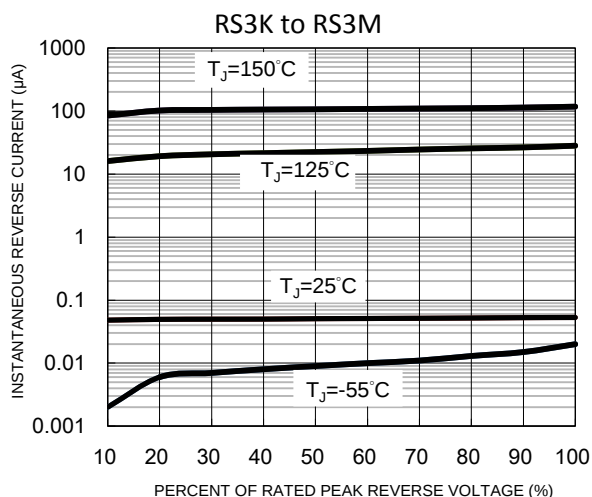


Fig.8 Typical Forward Characteristics

