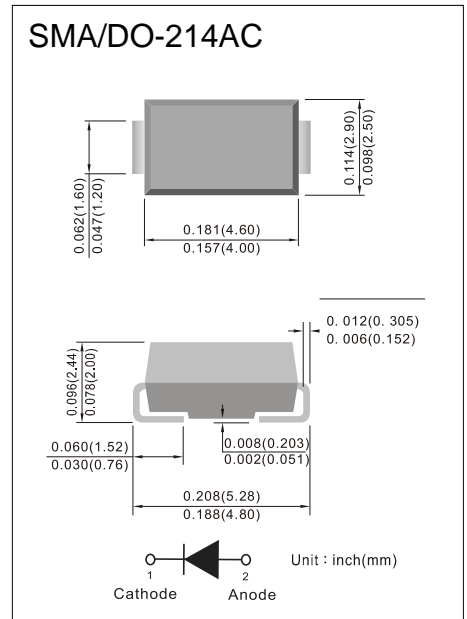


### ■ Features

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

### ■ Mechanical Data

- package:SMA/DO-214AC
- 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	RS2D	RS2G	RS2J	RS2K	RS2M	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	$I_F$	2					A
Surge peak forward current single half sine-wave superimposed on rated load per diode	8.3 ms at $T_A=25^{\circ}\text{C}$	50					A
	1.0 ms at $T_A=25^{\circ}\text{C}$	124					A
Junction temperature	$T_J$	-55 to +150					$^{\circ}\text{C}$
Storage temperature	$T_{STG}$	-55 to +150					$^{\circ}\text{C}$

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

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-lead thermal resistance per diode	$R_{\theta JL}$	14	$^{\circ}\text{C/W}$
Junction-to-ambient thermal resistance per diode	$R_{\theta JA}$	86	$^{\circ}\text{C/W}$
Junction-to-case thermal resistance per diode	$R_{\theta JC}$	23	$^{\circ}\text{C/W}$

**Note:** Units mounted on PCB (5mm x 5mm Cu pad test board)

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

PARAMETER		CONDITIONS	SYMBOL	TYP	MA	UNIT
Forward voltage per diode <sup>(1)</sup>	RS2D to RS2G	$I_F = 1\text{A}, T_J = 25^\circ\text{C}$	$V_F$	1.01	-	V
		$I_F = 2\text{A}, T_J = 25^\circ\text{C}$		1.11	1.3	V
		$I_F = 1\text{A}, T_J = 125^\circ\text{C}$		0.87	-	V
		$I_F = 2\text{A}, T_J = 125^\circ\text{C}$		0.98	1.12	V
	RS2J	$I_F = 1\text{A}, T_J = 25^\circ\text{C}$		1.02	-	V
		$I_F = 2\text{A}, T_J = 25^\circ\text{C}$		1.12	1.3	V
		$I_F = 1\text{A}, T_J = 125^\circ\text{C}$		0.91	-	V
		$I_F = 2\text{A}, T_J = 125^\circ\text{C}$		1.01	1.07	V
	RS2K to RS2M	$I_F = 1\text{A}, T_J = 25^\circ\text{C}$		0.95	-	V
		$I_F = 2\text{A}, T_J = 25^\circ\text{C}$		1.03	1.3	V
		$I_F = 1\text{A}, T_J = 125^\circ\text{C}$		0.81	-	V
		$I_F = 2\text{A}, T_J = 125^\circ\text{C}$		0.90	1.03	V
Reverse current @ rated $V_R$ per diode <sup>(2)</sup>		$T_J = 25^\circ\text{C}$	$I_R$	-	5	$\mu\text{A}$
		$T_J = 125^\circ\text{C}$		-	100	$\mu\text{A}$
Reverse recovery time	RS2D to RS2G	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	$t_{rr}$	-	150	ns
	RS2J			-	250	ns
	RS2K to RS2M			-	500	ns
Junction capacitance per diode	RS2D to RS2G	1 MHz, $V_R=4.0\text{V}$	$C_J$	14	-	pF
	RS2J			13	-	pF
	RS2K to RS2M			10	-	pF

**Notes:**

(1) Pul se test with PW=0.3 ms (2) Pul se test with PW=30 ms

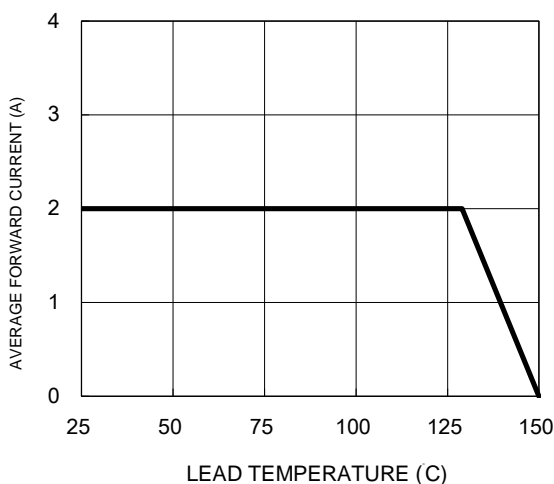
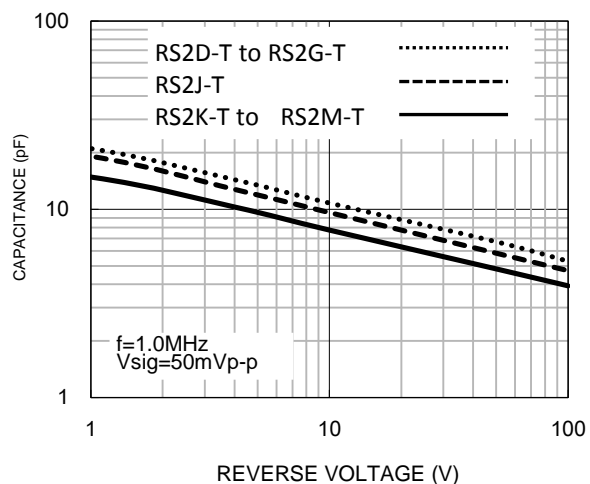
**Characteristics Curves ( $T_A=25^\circ\text{C}$  unless otherwise noted)**
**Fig.1 Forward Current Derating Curve**

**Fig.2 Typical Junction Capacitance**




Fig.3 Typical Reverse Characteristics

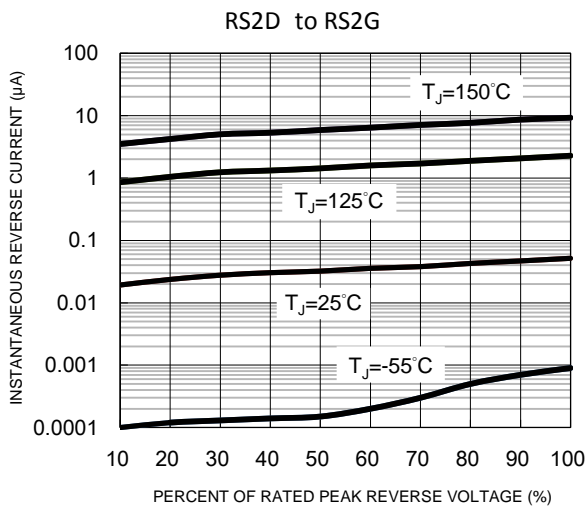


Fig.4 Typical Forward Characteristics

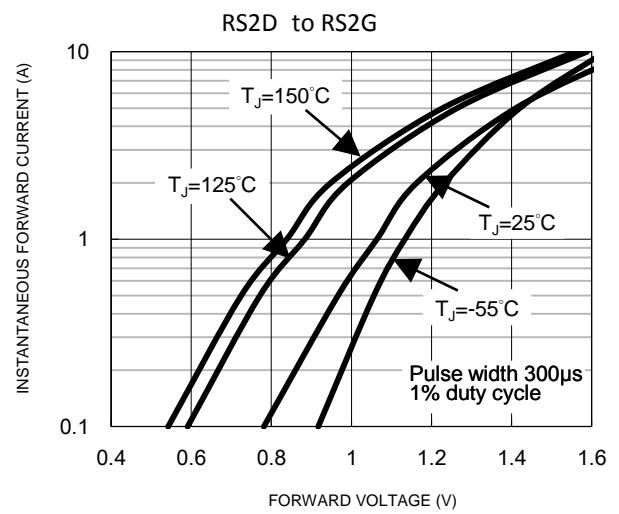


Fig.5 Typical Reverse Characteristics

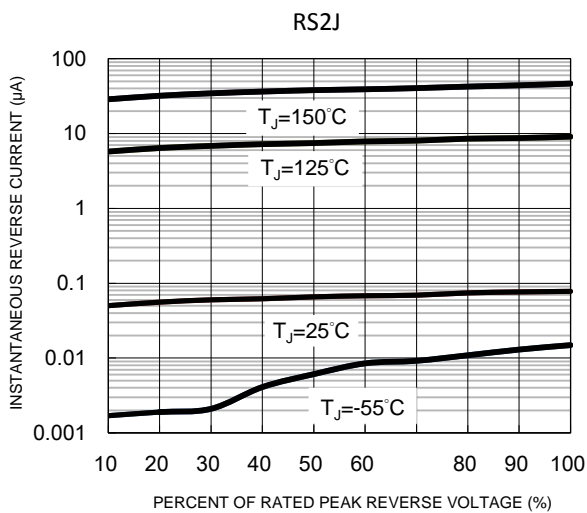


Fig.6 Typical Forward Characteristics

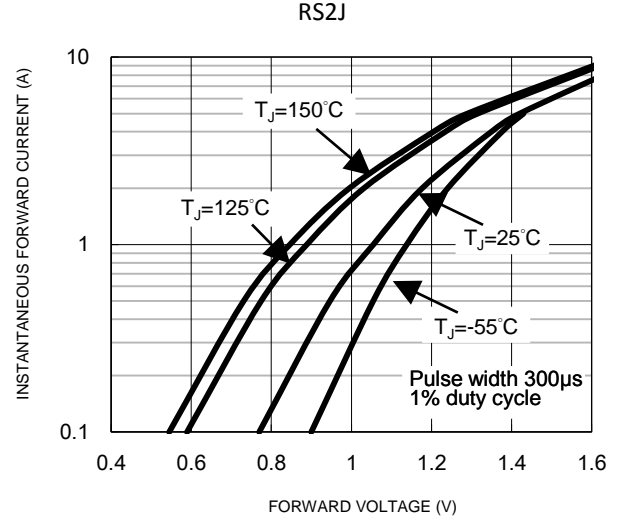


Fig.7 Typical Reverse Characteristics

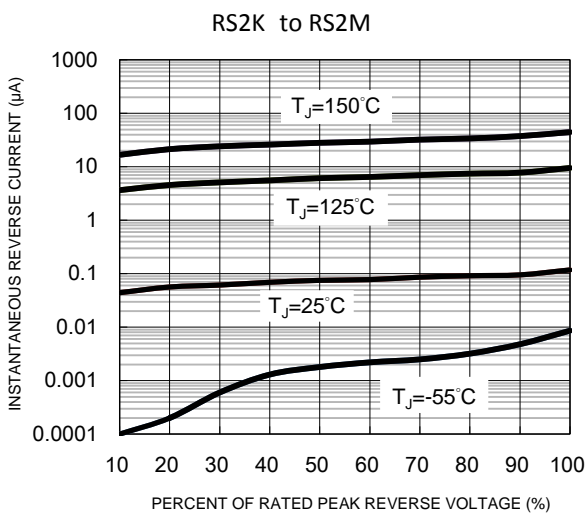


Fig.8 Typical Forward Characteristics

