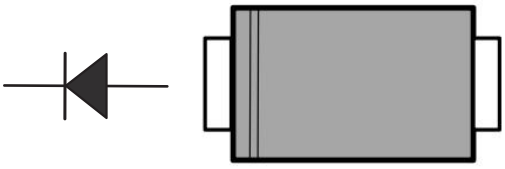
Surface Mount Fast Recovery Rectifiers

Parameter	Value	Unit
V_{RRM}	50~1000	V
$I_{F(AV)}$	2.0	A



DO-214AC/SMA

Features

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Fast reverse recovery time

Applications

- For use in fast-switching rectification in power supplies, inverters, converters, and as free-wheeling diodes in consumer and telecommunications applications.

Absolute Maximum Ratings and Characteristics (at TJ = 25°C unless otherwise specified)

Parameter	Symbol	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	Units
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 at Tc = 125℃	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50							A
Maximum Forward Voltage at 2A	V_F	1.3							V
Maximum DC Reverse Current Ta =25℃ at Rated DC Blocking Voltage Ta=125℃	I_R	5 100							μA
Typical Junction Capacitance at VR=4V, f=1MHz	C_j	22							pF
Maximum Reverse Recovery Time（1）	t_{rr}	150				250	500		ns
Typical Thermal Resistance（2）	$R_{\theta JA}$ $R_{\theta JC}$	65 20							℃/W
Operating and Storage Temperature Range	T_j , T_{stg}	-55 ~ +150							℃

Notes:

（1）Measured with IF = 0.5A, IR = 1A, Irr = 0.25A.

（2）P.C.B. mounted with 2.0" X 2.0" (5 X 5cm) copper pad areas.

Typical characteristics

Fig.1 Forward Current Derating Curve

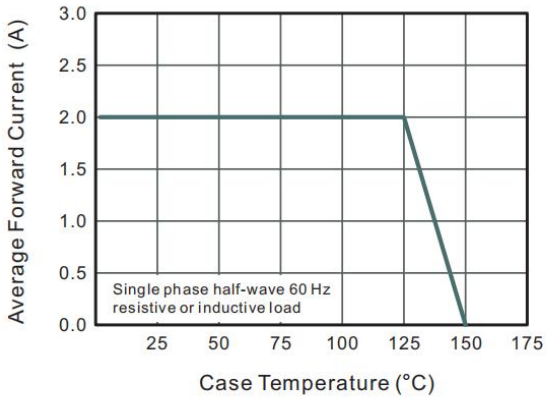


Fig.2 Typical Reverse Characteristics

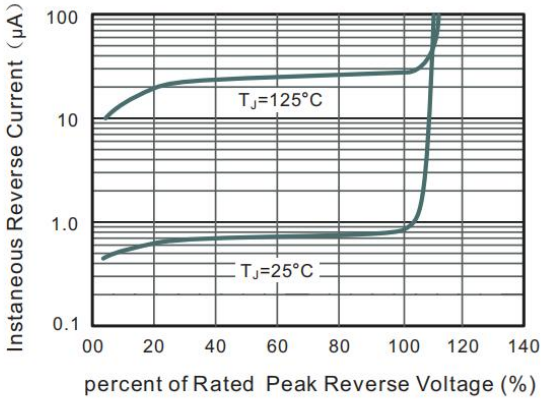


Fig.3 Typical Instaneous Forward Characteristics

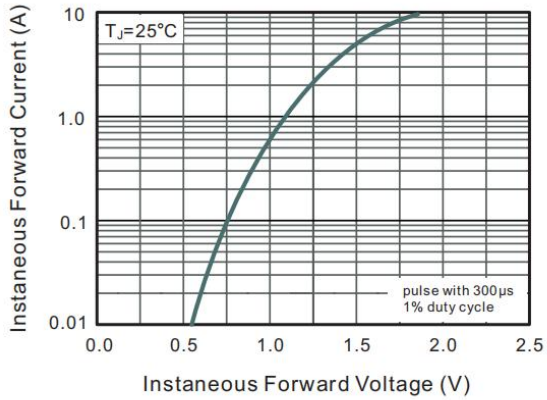


Fig.4 Typical Junction Capacitance

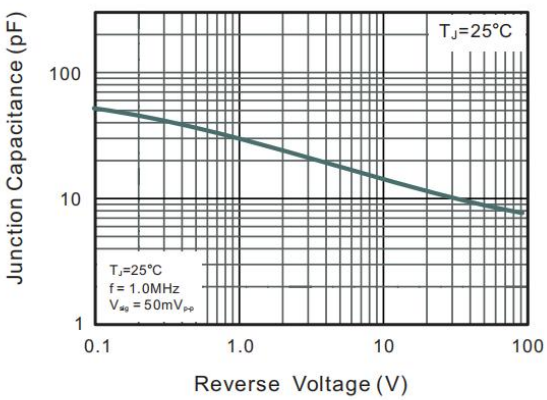
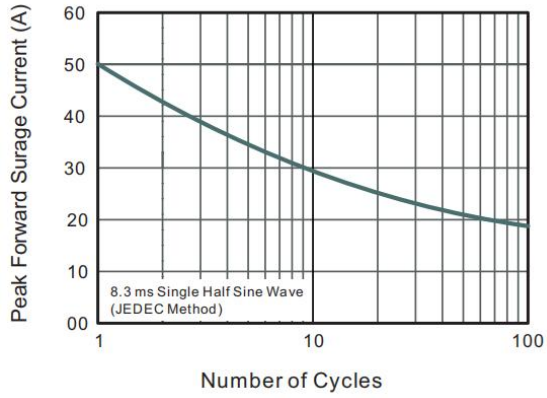


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package outlines

Plastic surface mounted package; 2 leads

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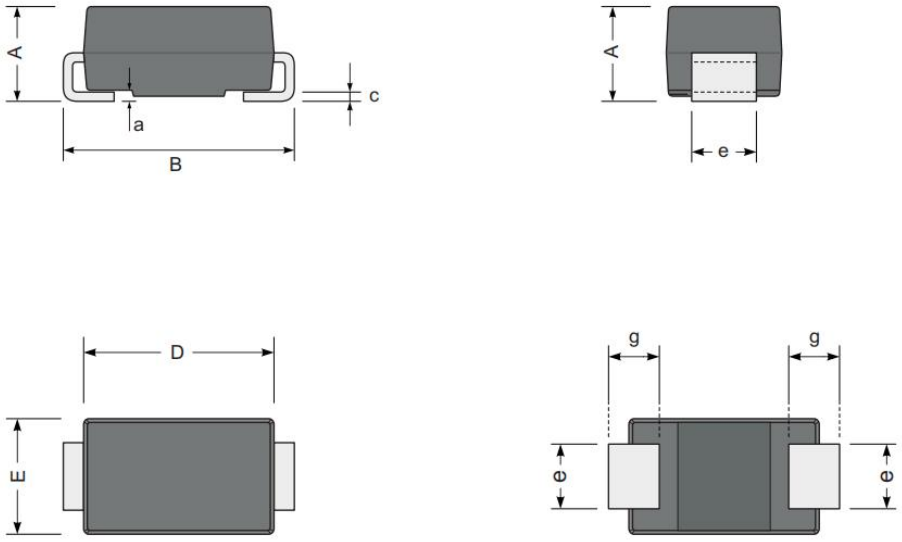
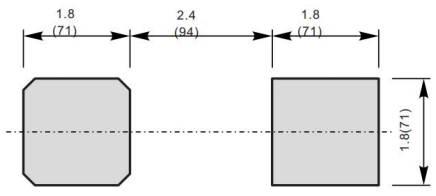


UNIT		A	D	E	B	c	e	g	a
mm	max	2.2	4.5	2.8	5.3	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.4	4.8	0.15	1.3	0.9	
mil	max	87	181	110	209	12	63	59	12
	min	75	157	94	189	6	51	35	

The recommended mounting pad size



Unit : mm (mil)

Marking

Type number	Marking code
RS2A	RS2A
RS2B	RS2B
RS2D	RS2D
RS2G	RS2G
RS2J	RS2J
RS2K	RS2K
RS2M	RS2M

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