RS1AG THRU RS1MG

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

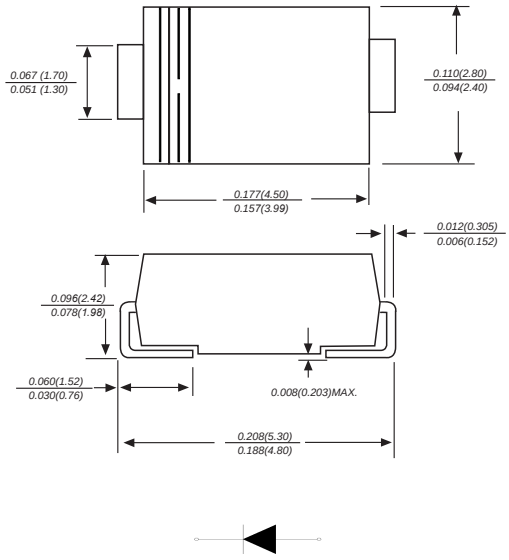
SURFACE MOUNT FAST RECOVERY RECTIFIER

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Open Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/ 10 seconds at terminals
- Glass passivated chip junction

DO-214AC/SMA

RoHS COMPLIANT



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-214AC/SMA Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.002ounce, 0.055 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter	SYMBOLS	RS1AG	RS1BG	RS1DG	RS1GG	RS1JG	RS1KG	RS1MG	UNITS
Marking Code		MDD RS1A	MDD RS1B	MDD RS1D	MDD RS1G	MDD RS1J	MDD RS1K	MDD RS1M	
Maximum repetitive peak reverse voltage	V_{RMM}	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 TL=90℃	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	30							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.30							V
Maximum DC reverse current TA=25℃ at rated DC blocking voltage TA=125℃	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 1)	trr	150				250	500		ns
Typical junction capacitance (NOTE 2)	C_J	15.0							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	75.0							℃/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							℃

Note:1.Reverse recovery condition IF=0.5A,IR=1.0A,Irr=0.25A.
2.P.C.B. mounted with 2.0x2.0"(5.0x5.0cm) copper pad areas.
3.The typical data above is for reference only.

DN:T19704A0

Ratings And Characteristic Curves

Fig.1 Forward Current Derating Curve

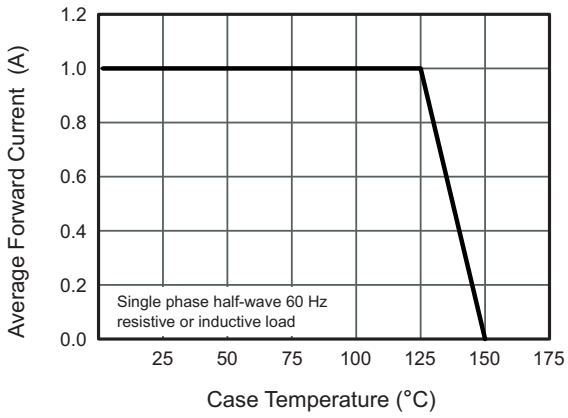


Fig.2 Typical Reverse Characteristics

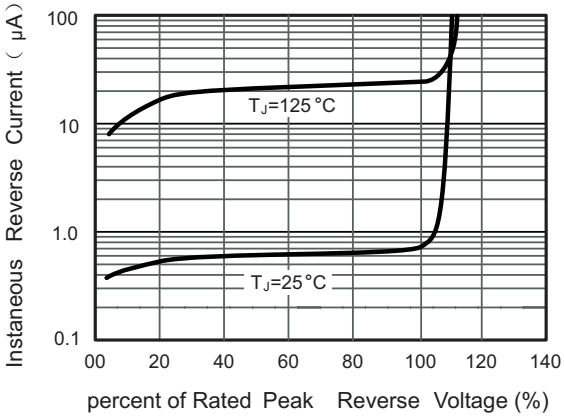


Fig.3 Typical Instaneous Forward Characteristics

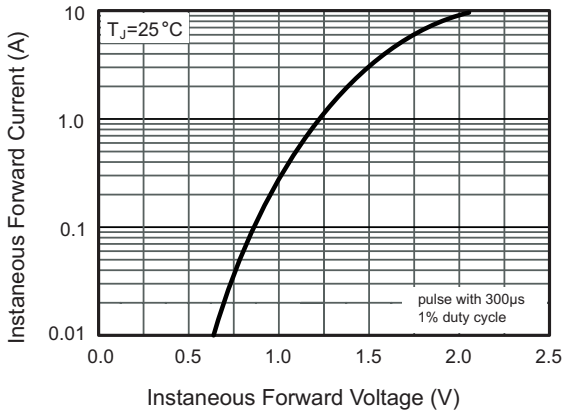


Fig.4 Typical Junction Capacitance

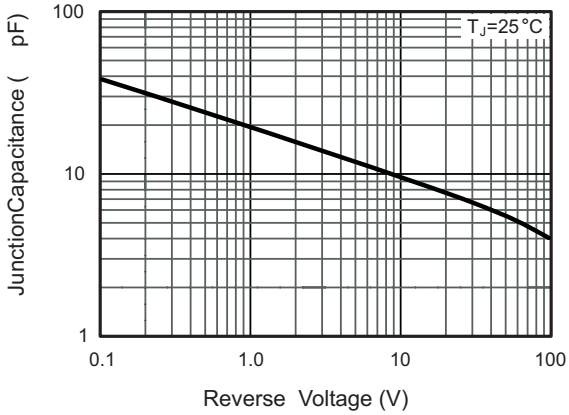
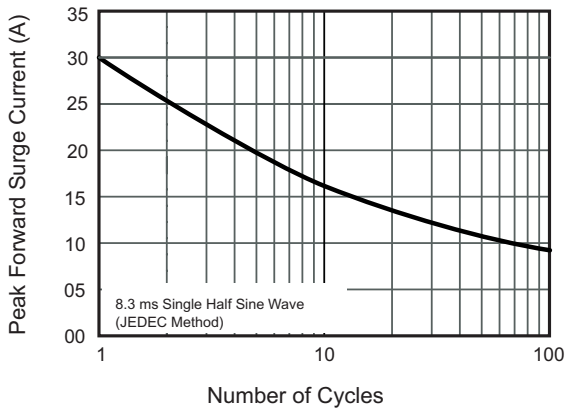
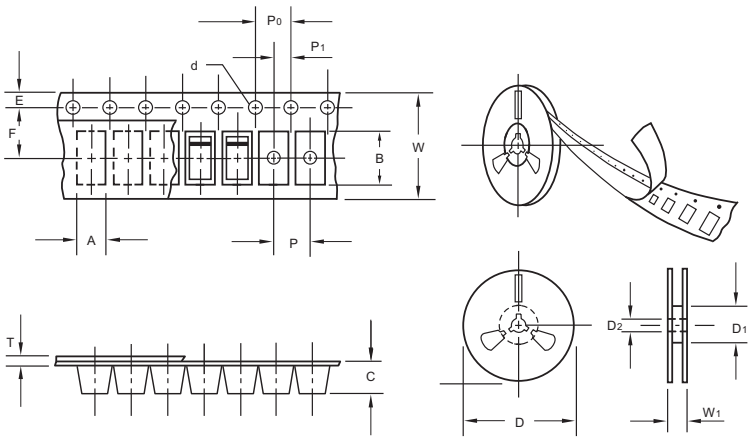


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.

Packing information



unit:mm

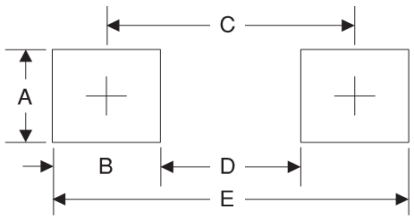
Item	Symbol	Tolerance	SMA
Carrier width	A	0.1	2.80
Carrier length	B	0.1	5.33
Carrier depth	C	0.1	2.36
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D_1	min	50.00
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D_1	min	62.00
Feed hole diameter	D_2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	5.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P_0	0.1	4.00
Embossment center	P_1	0.1	2.00
Overall tape thickness	T	0.1	0.28
Tape width	W	0.3	12.00
Reel width	W_1	1.0	18.00

Note:Devices are packed in accor dance with EIA standar RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SMA	7"	2,000	4.0	4,000	183*155*183	178	382*356*392	160,000	16.0
SMA	11"	5,000	4.0	10,000	290*290*38	330	310*310*360	80,000	11.0
SMA	13"	7,500	4.0	15,000	335*335*38	330	350*330*360	120,000	14.5

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.41	0.095
E	5.45	0.215

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