SS52 THRU SS5200

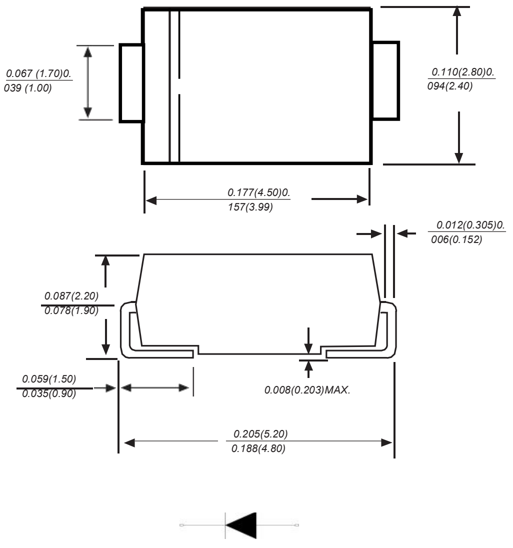
Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Ampere

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250 °C/10 seconds at terminals

DO-214AC/SMA RoHS COMPLIANT



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-214AC/SMA molded plastic body
Terminals : Solderable per MIL-STD-750,Method 2026
Polarity : Color band denotes cathode end Mounting
Position : Any
Weight : 0.002 ounce, 0.07 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	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS5150	SS5200	UNITS
Marking Code		RCD SS52	~~RCD~~ SS53	RCD SS54	RCD SS55	RCD SS56	RCD SS58	RCD SS510	RCD SS5150	RCD SS5200	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current at TL(see fig.1)	$I_{(AV)}$	5.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	125									A
Maximum instantaneous forward voltage at 5.0A	V_F	0.55			0.70		0.85			0.95	V
Maximum DC reverse current T_A=25℃	I_R	0.5							0.2		mA
at rated DC blocking voltage T_A=125℃		20					10		2.0		
Typical junction capacitance (NOTE 1)	C_J	200									pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0									℃/W
Operating junction temperature range	T_J	-50 to +125					-50 to +150				℃
Storage temperature range	T_{STG}	-50 to +150									℃

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B. mounted with 0.2x0.2″(5.0x5.0mm) copper pad areas

Fig.1 Forward Current Derating Curve

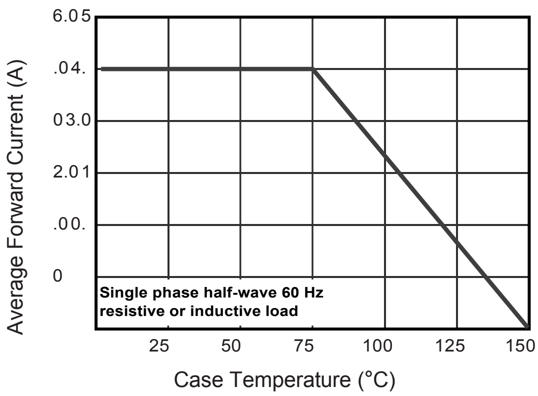


Fig.2 Typical Reverse Characteristics

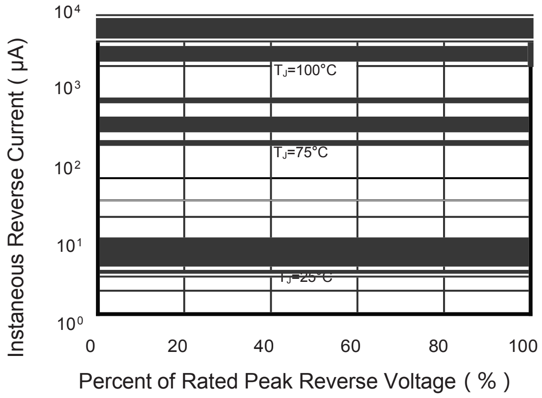


Fig.3 Typical Forward Characteristic

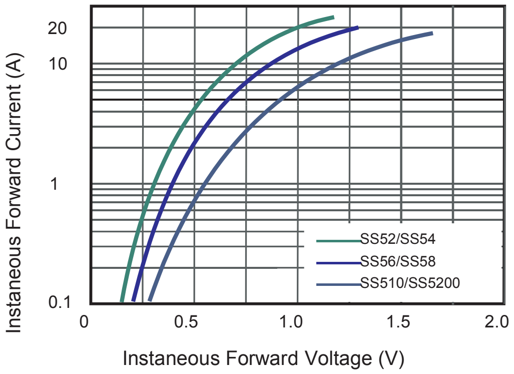


Fig.4 Typical Junction Capacitance

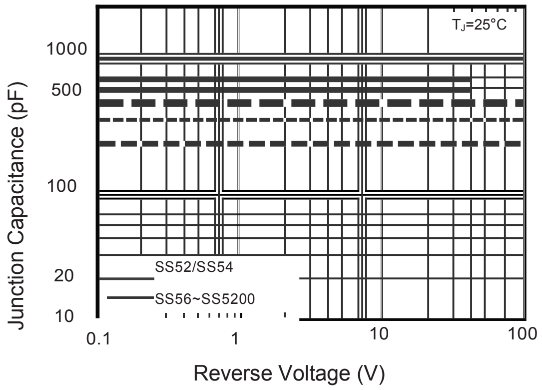


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

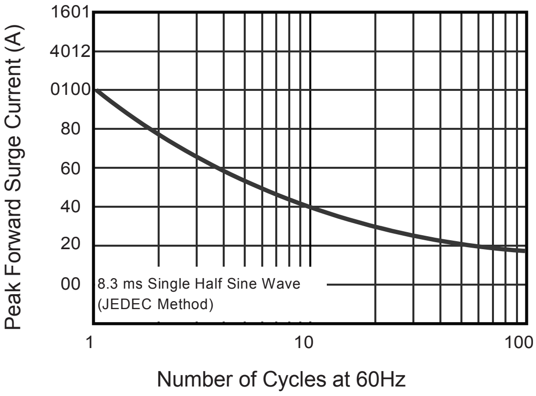
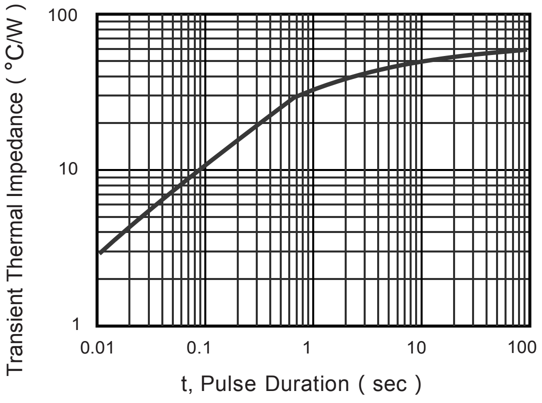
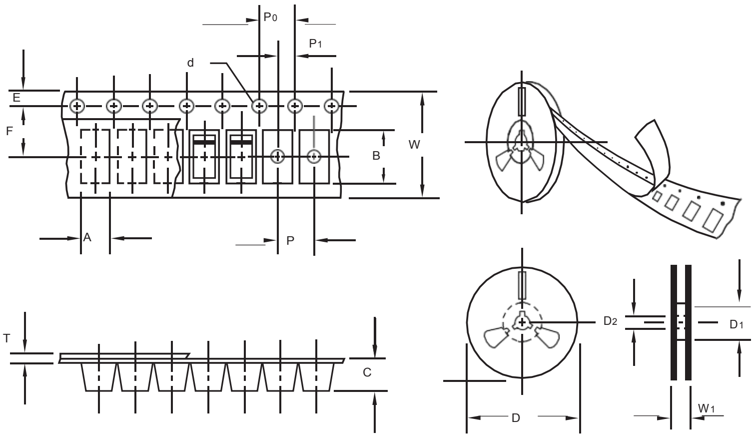


Fig.6- Typical Transient Thermal Impedance





unit:mm

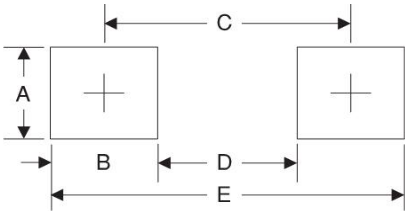
Item	Symbol	Tolerance	SMA
Carrier width	A	0.1	2.80
Carrier length	B	0.1	5.33
Carrier depth	C	0.1	2.36
Sprocket hole	d	0.05	1.50
13" Reel outside diameter	D	2.0	330.00
13" Reel inner diameter	D_1	min	50.00
7" Reel outside diameter 7"	D	2.0	178.00
Reel inner diameter	D_1D_2	min	62.00
Feed hole diameter	E	0.5	13.00
Sprocket hole position	F	0.1	1.75
Punch hole position	P	0.1	5.50
Punch hole pitch	P_0	0.1	4.00
Sprocket hole pitch	P_1	0.1	4.00
Embossment center	T	0.1	2.00
Overall tape thickness	W	0.1	0.28
Tape width	W_1	0.3	12.00
Reel width		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	80,000	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