



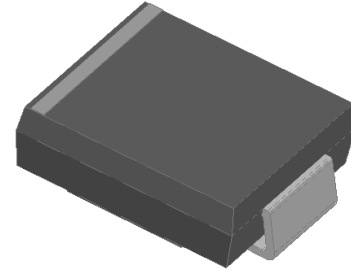
SR52C THRU SR525C

5.0 AMP Surface Mount Schottky Barrier Rectifier

1. Features

- Low leakage current
- Schottky barrier diodes
- Low forward voltage drop.
- High current capability.
- High reliability.
- Meets MSL level 1, per J-STD-020.

SMC(DO-214AB)



2. Mechanical Data

- Case:Molded Plastic,SMC(DO-214AB) .
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking:marked on body.

3. Maximum Ratings and Electrical Characteristics

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	SR52C	SR54C	SR545C	SR55C	SR56C	SR58C	SR510C	SR515C	SR520C	SR525C	UNIT	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	V _{RMS}	14	28	31	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	V _{DC}	20	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current @T _L =100°C	I _{F(AV)}	5.0										A	
Peak Forward Surge Current 8.3ms @T _j =25°C	I _{FSM}	100										A	
Single half sine-wave superimposed @T _j =125°C on rated load (JEDEC Method)		80											
I ² t Rating for Fusing (t < 8.3ms)	I ² t	41.5										A ² S	
Maximum Instantaneous Forward Voltage @I _F =5A	V _{FM}	0.55			0.7		0.85		0.92		0.95	V	
Maximum DC reverse current @T _j =25°C	I _R	0.1					0.05						mA
at rated DC blocking voltage @T _j =100°C		10					0.5						
Typical Junction Capacitance (Note 1)	C _j	190			160		125		85		65	pF	
Typical Thermal Resistance	R _{θJA}	45										°C/W	
	R _{θJL}	18											
	R _{θJC}	20											
Operating Temperature Range	T _j	-55 to+150										°C	
Storage Temperature Range	T _{STG}	-55 to+150										°C	

Note:

1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



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4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

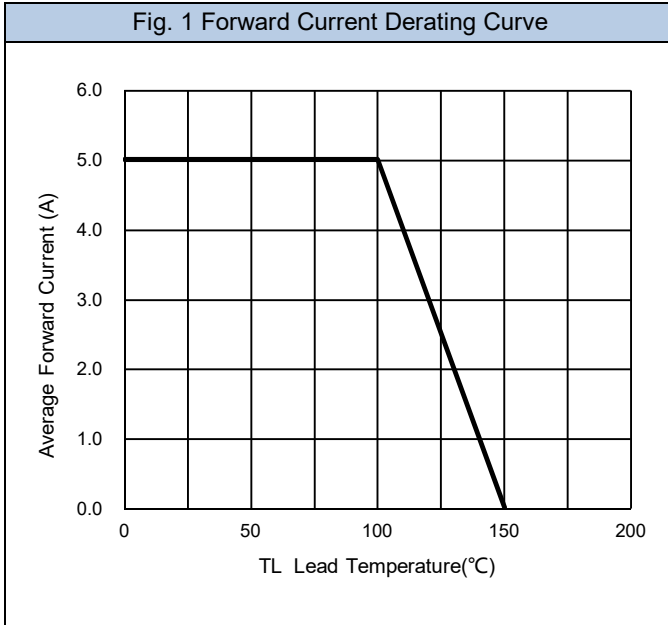


Fig. 2 Typical Forward Characteristics

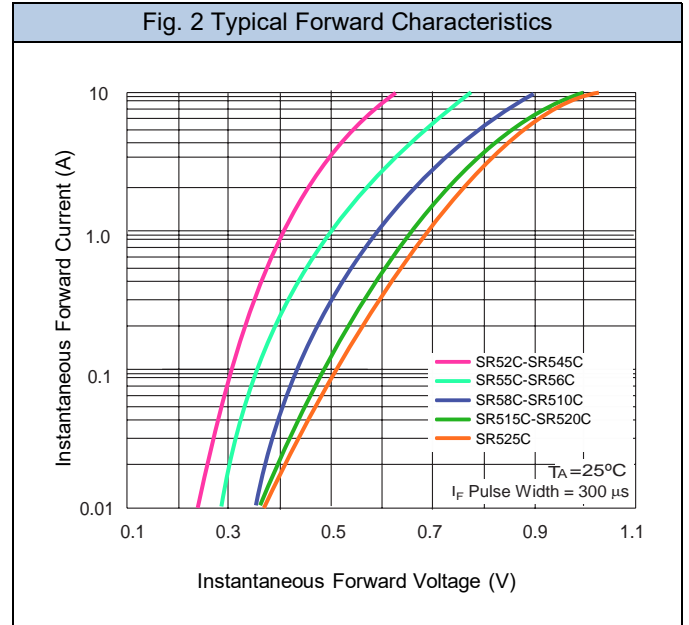


Fig. 3 Forward Surge Current Capability

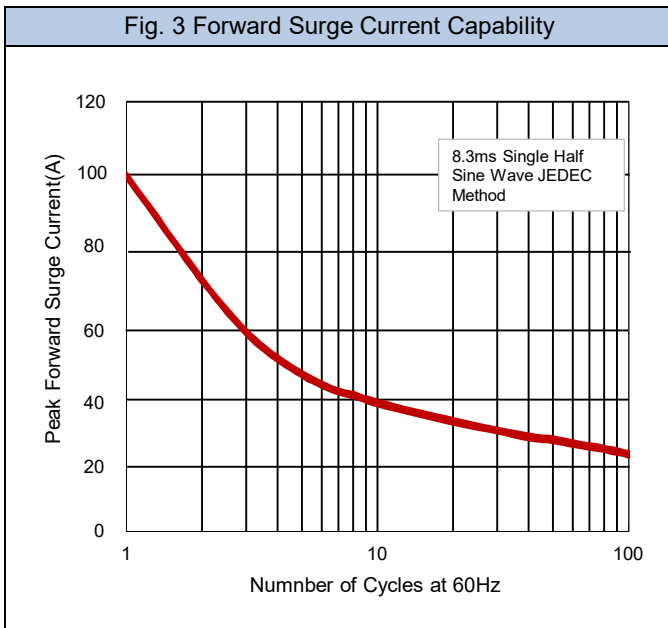
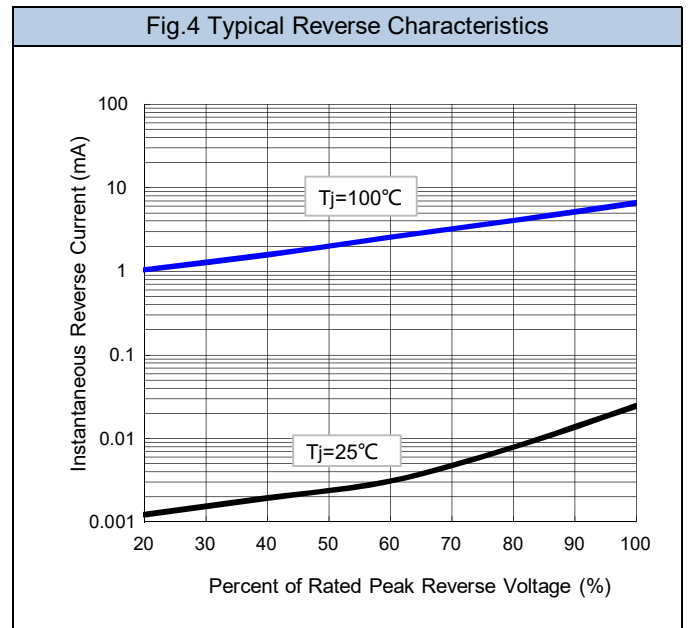


Fig. 4 Typical Reverse Characteristics

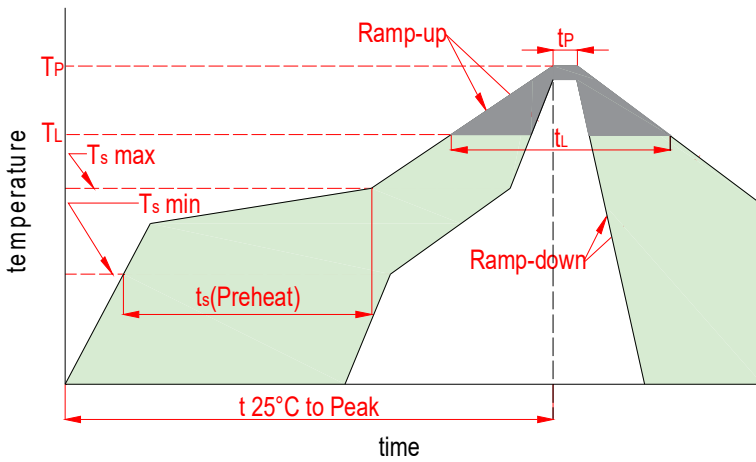




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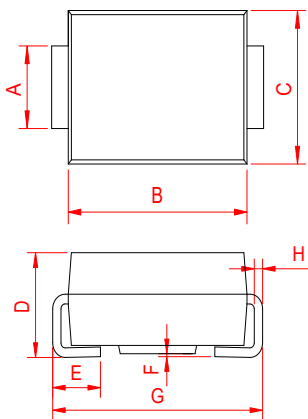
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5. Soldering Parameters



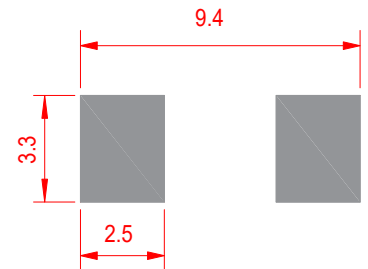
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150°C
	Temp. max(T_s (min))	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
T_s (max) to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp. (T_L)(Liquidus)	217°C
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_p)		260 ^{+0/-5} °C
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6°C/s max
Time 25°C to peak Tempe. (T_p)		8 minutes max
Do not exceed		260°C

6. Dimensions

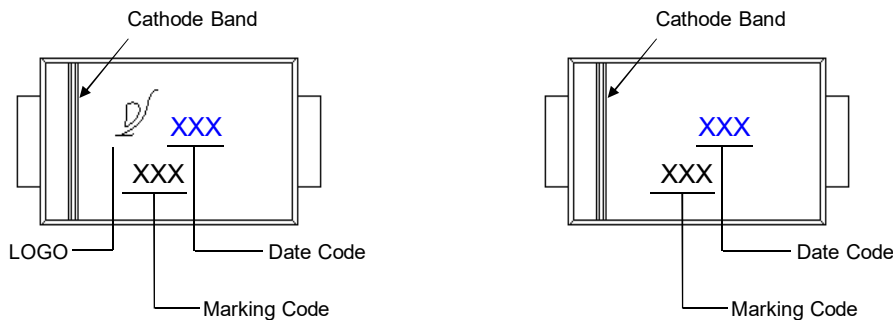


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.110	0.126	2.80	3.20
B	0.260	0.280	6.60	7.11
C	0.220	0.245	5.59	6.22
D	0.079	0.103	2.00	2.62
E	0.039	0.063	1.00	1.60
F	0.002	0.008	0.05	0.20
G	0.305	0.320	7.75	8.13
H	0.006	0.014	0.15	0.35

Mounting PAD Layout



7. Part Marking System



8. Package Information

Package	Tape Width (mm)	Reel Size		Quantity(pcs)
		mm	inch	
SMC(DO-214AB)	16	330	13	3000



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