

Schottky rectifier

Features

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering:
 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/1 and WEEE 2002/96/EC





SMC (DO - 214AB)

Mechanical Date

 Case: JEDEC DO-214AB molded plastic
 Terminals: Solder plated, solderable per JESD22-B102D

• Polarity: Laser band denotes cathode end

Major Ratings and Characteristics

I _{F(AV)}	5.0A
V _{RRM}	20 V to 200 V
I _{FSM}	150A
V _F	0.50V, 0.55V, 0.70V, 0.85V,0.95V
T _j max.	125 °C

Maximum Ratings & Thermal Characteristics

(T_A = 25 °C unless otherwise noted)

Items	Symbol	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	UNIT
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	I _{F(AV)}	5								Α	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	150								Α	
Voltage rate of change (rated V_R)	dv/dt	10000								V/µs	
Thermal resistance from junction to lead ⁽¹⁾	R _{eJL}	20								°C/W	
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +125								$^{\circ}$ C	

Note 1: Mounted on P.C.B. with 0.55 × 0.55" ($14 \times 14 \text{ mm}$) copper pad areas.

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test co	Symbol	SS52	SS53~54	SS55~56	SS58~510	SS515~520	UNIT	
Instantaneous forward voltage	I _F =5.0A ⁽²⁾		V _F	0.50	0.55	0.70	0.85	0.95	V
Reverse current	V _R =V _{DC}	T _j =25℃	I-	0.5					
	V _R -V _{DC}	T _j =100℃	IR	10.0					

Note 2: Pulse test:300µs pulse width,1% duty cycle.



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Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

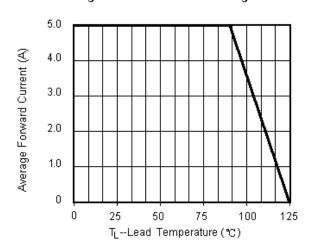


Fig.2 Maximum Non-Repetitive Peak
Forward Surge Current

150
90
10
100
200
Number of Cycles at 60 Hz

Fig.3 Typical Instantaneous Forward Characteristics

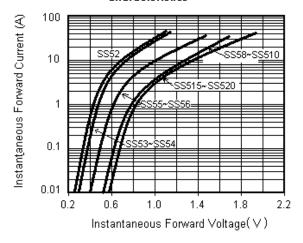
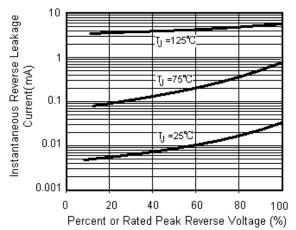


Fig.4 Typical Reverse Leakage Characteristics





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Package Outline

SMC (DO - 214AB) Cathode Band 3.20(0.126) 2.90(0.114) 6.22(0.245) 5.59(0.220) 7.11(0.280) 6.60(0.260) .62(0.103) .06(0.081) 0.305(0.012) T 0.152(0.006) 1.52(0.060) 0.203(0.008)max 0.76(0.030) 8.13(0.320) 7.75(0.305)

Dimensions in millimeters and (inches)

Notice

- Product is intended for use in general electronics applications.
- Product should be worked less than the ratings; if exceeded, may cause permanent damage.or introduce latent failure mechanisms.
- The absolute maximum ratings are rated values and must not be exceeded during operation. The following are the general derating methods you design a circuit with a device.
 - $I_{\text{F(AV)}}$: We recommend that the worst case current be no greater than 80% .
 - T_J : Derate this rating when using a device in order to ensure high reliability. We recommend that the device be used at a T_J of below 100°C.
- TRR is registered trademark of Zhejiang TRR Microelectronics Inc. Zhejiang TRR Microelectronics Inc reserves the right to make changes to any
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- Zhejiang TRR Microelectronics Inc does not assure any liability arising out of the applications or use of any product described in this specification.
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 that the required information is current.