SOCAY

Schottky rectifier

SS12B~SS120B DO-214AA

Features

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

DO-214AA(SMB)

Mechanical Date

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denotes cathode end

Major Ratings and Characteristics

$I_{F(AV)}$	1.0A
V_{RRM}	20 V to 100 V
I_{FSM}	40A
V_F	0.50V, 0.55V, 0.70V, 0.85V
$T_{j\ max.}$	125℃

Maximum Ratings & Thermal Characteristics (T_A = 25℃ unless otherwise noted)

Items	Symbol	SS12B	SS13B	SS14B	SS15B	SS16B	SS18B	SS110B	SS115B	SS120B	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	$I_{F(AV)}$	1									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	40									A
Voltage rate of change (rated V_R)	dv/dt	10000									V/μs
Thermal resistance from junction to lead (1)	$R_{\theta JL}$	25									℃/W
Operating junction and storage temperature range	T_J,T_{STG}	–65 to +125									℃

Note 1: Mounted on P.C.B. with 0.28 x 0.28” (7.0 x 7.0mm) copper pad areas.

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Electrical Characteristics (T_A = 25℃ unless otherwise noted)

Items	Test conditions		Symbol	SS12B	SS13B~ SS14B	SS15B~ SS16B	SS18B~ SS110B	SS115B~ SS120B	Unit
Instantaneous forward voltage	I_F=1.0A(2)		V_F	0.50	0.55	0.70	0.85	0.9	V
Reverse current	V_R=V_{DC}	T_j=25℃	I_R	0.5					mA
		T_j=125℃		5.0					

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

Characteristic Curves (T_A = 25℃ unless otherwise noted)

Fig1. Forward Current Derating Curve

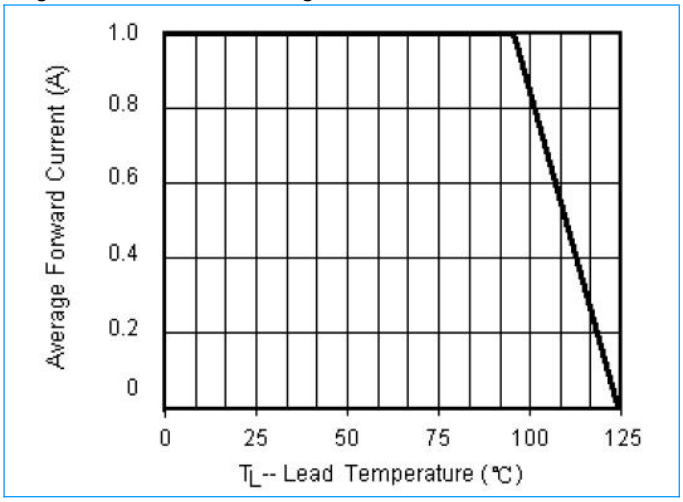


Fig2. Maximum Non-Repetitive Peak Forward Surge Current

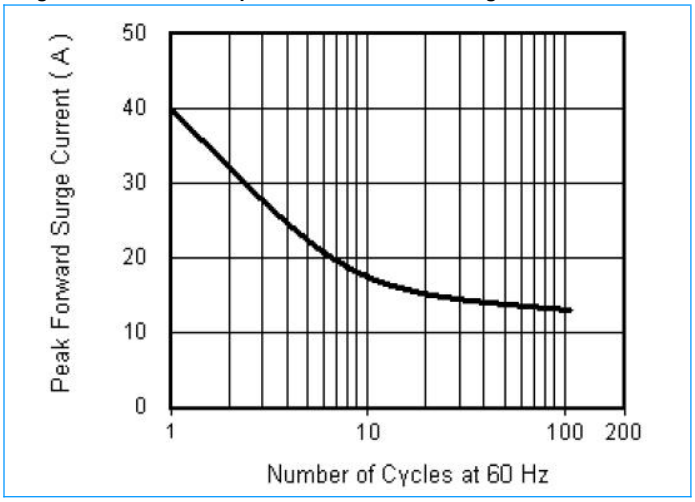


Fig3. Typical Instantaneous Forward Characteristics

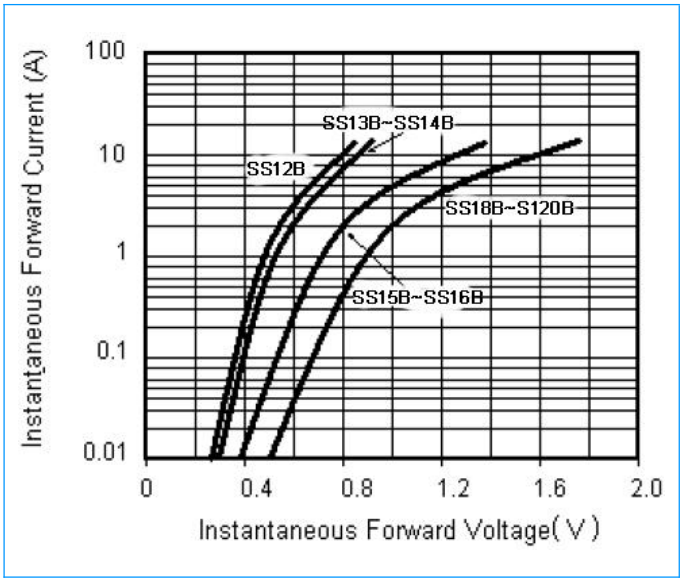
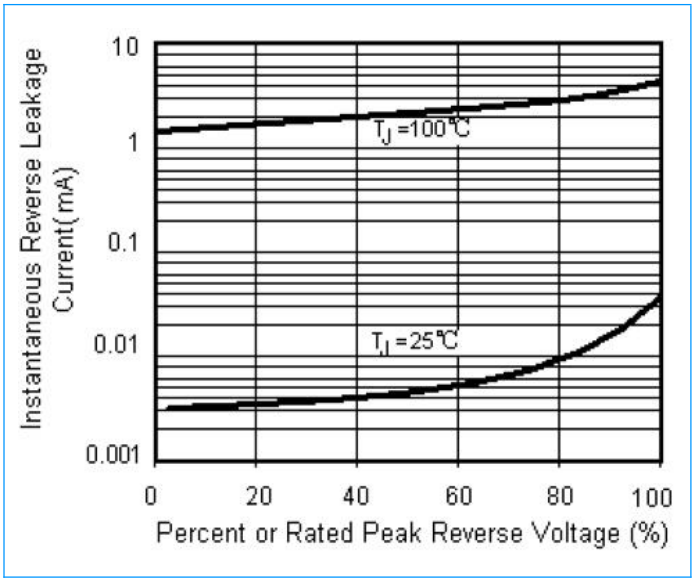


Fig4. Typical Reverse Leakage Characteristics



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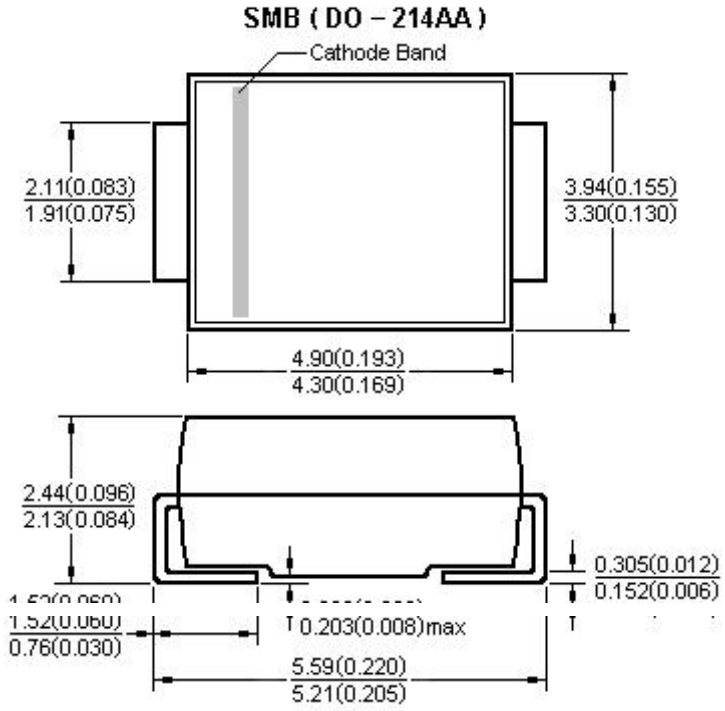
Package Outline



Dimensions in millimeters and (inches)