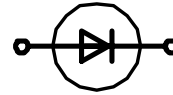


Schottky

High Performance Schottky Diode
 Low Loss and Soft Recovery
 Single Diode

$V_{RRM} = 60\text{ V}$
 $I_{FAV} = 2\text{ A}$
 $V_F = 0.52\text{ V}$

Part number (Marking on product)
DSB 2 I 60 SB (S2HBB)



Features / Advantages:

- Very low V_f
- Extremely low switching losses
- Low I_{rm} -values
- Improved thermal behaviour
- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

Applications:

- Rectifiers in switch mode power supplies (SMPS)
- Free wheeling diode in low voltage converters
- Decoupling diode

Package:

- SMB (DO-214AA)
- Industry standard outline
 - Epoxy meets UL 94V-0
 - RoHS compliant

Ratings

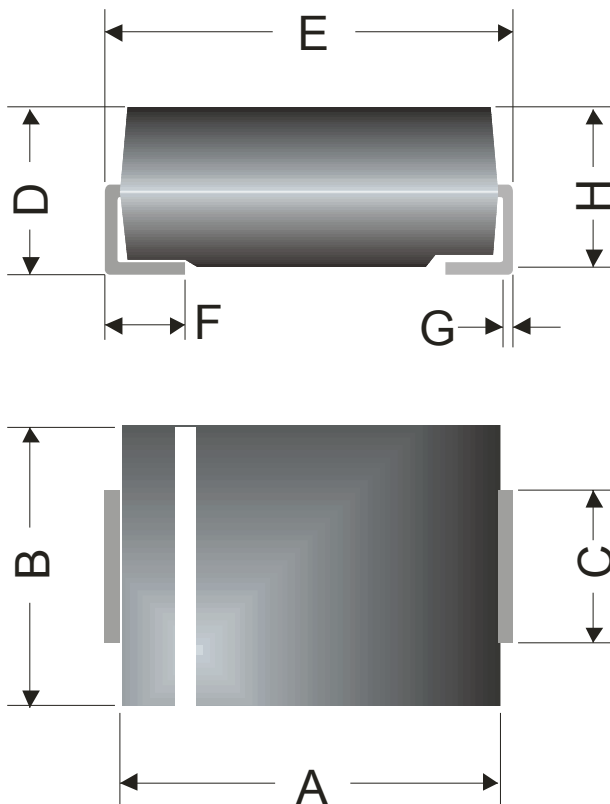
Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
V_{RRM}	max. repetitive reverse voltage	$T_{VJ} = 25\text{ °C}$			60	V
I_R	reverse current	$V_R = 60\text{ V}$ $T_{VJ} = 25\text{ °C}$			0.1	mA
		$V_R = 60\text{ V}$ $T_{VJ} = 125\text{ °C}$			25	mA
V_F	forward voltage	$I_F = 2\text{ A}$ $T_{VJ} = 25\text{ °C}$			0.60	V
		$I_F = 4\text{ A}$ $T_{VJ} = 25\text{ °C}$			0.72	V
		$I_F = 2\text{ A}$ $T_{VJ} = 125\text{ °C}$			0.52	V
		$I_F = 4\text{ A}$ $T_{VJ} = 125\text{ °C}$			0.64	V
I_{FAV}	average forward current	rectangular, $d = 0.5$ $T_L = 125\text{ °C}$			2	A
V_{F0}	threshold voltage	} for power loss calculation only $T_L = 150\text{ °C}$				V
r_F	slope resistance					m Ω
R_{thJL}	thermal resistance junction to lead*				25	K/W
T_{VJ}	virtual junction temperature		-55		150	°C
P_{tot}	total power dissipation	$T_L = 25\text{ °C}$			5	W
I_{FSM}	max. forward surge current	$t_p = 10\text{ ms (50 Hz), sine}$ $T_{VJ} = 45\text{ °C}$			75	A
C_j	junction capacitance	$V_R = 5\text{ V}; f = 1\text{ MHz}$ $T_{VJ} = 25\text{ °C}$			120	pF
E_{AS}	non-repetitive avalanche energy	$I_{AS} = \text{A}; L = 100\text{ }\mu\text{H}$ $T_{VJ} = 25\text{ °C}$			tdb	mJ
I_{AR}	repetitive avalanche current	$V_A = 1.5 \cdot V_R$ typ.; $f = 10\text{ kHz}$			tdb	A

* mounted on 1 inch square PCB

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
I_{RMS}	<i>RMS current</i>	per pin*				A
R_{thJA}	<i>thermal resistance junction to ambient</i>			70		K/W
M_D	<i>mounting torque</i>					Nm
F_C	<i>mounting force with clip</i>					N
T_{stg}	<i>storage temperature</i>		-55		150	°C
Weight				0.1		g

* I_{rms} is typically limited by: 1. pin-to-chip resistance; or by 2. current capability of the chip.

In case of 1, a common cathode/anode configuration and a non-isolated backside, the whole current capability can be used by connecting the backside.

Outlines SMB (DO-214AA)


Dim.	Millimeters		Inches	
	min	max	min	max
A	4.06	4.57	0.160	0.180
B	3.30	3.94	0.130	0.155
C	1.95	2.20	0.077	0.087
D	2.13	2.44	0.084	0.096
E	5.21	5.59	0.205	0.220
F	0.76	1.52	0.030	0.060
G	0.15	0.31	0.006	0.012
H	2.00	2.20	0.079	0.087