



1.0A Schottky Barrier Rectifiers

Features

1. High surge capability
2. Low power loss, high efficiency
3. Surge overload rating to 40A peak
4. High current capability and low forward voltage drop
5. For use in low voltage, high frequency inverters, free wheeling, and polarity protection application



Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage = Working peak reverse voltage = DC blocking voltage		SB120	V_{RRM} = V_{RWM} = V_R	20	V
		SB130		30	V
		SB140		40	V
		SB150		50	V
		SB160		60	V
Peak forward surge current			I_{FSM}	40	A
Average forward current	$T_A=75^{\circ}\text{C}$		I_{FAV}	1	A
Storage temperature range			T_{stg}	-65~+150	$^{\circ}\text{C}$

Electrical Characteristics

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{A}$	SB120~SB140	V_F			0.5	V
		SB150~SB160	V_F			0.7	V
Reverse current	$T_A=25^{\circ}\text{C}$		I_R			0.5	mA
	$T_A=100^{\circ}\text{C}$		I_R			10	mA
Diode capacitance	$V_R=4\text{V}, f=1\text{MHz}$	SB120~SB140	C_D		110		pF
		SB150~SB160	C_D		80		pF

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Characteristics ($T_j=25^\circ\text{C}$ unless otherwise specified)

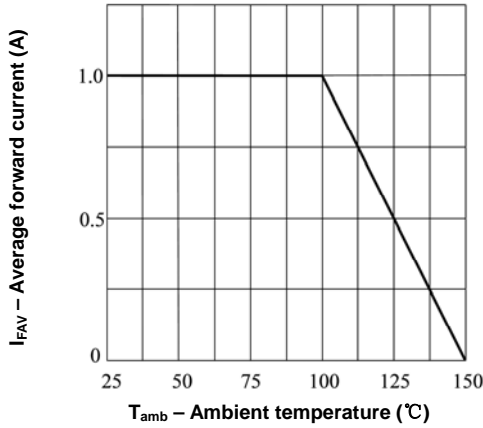


Figure 1. Max. Average forward current vs. ambient temperature

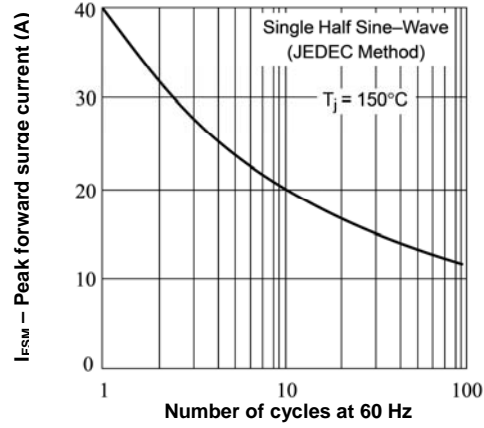


Figure 2. Max. Peak forward surge current vs. Number of cycles

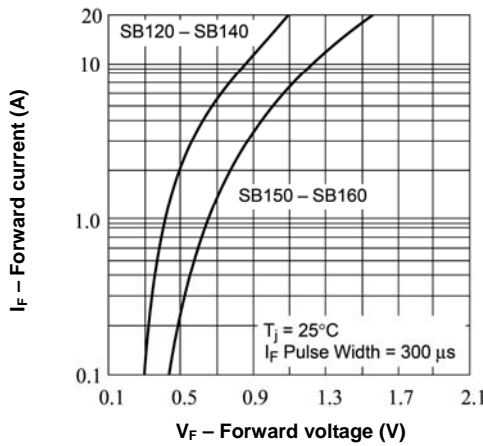


Figure 3. Typ. forward current vs. forward voltage

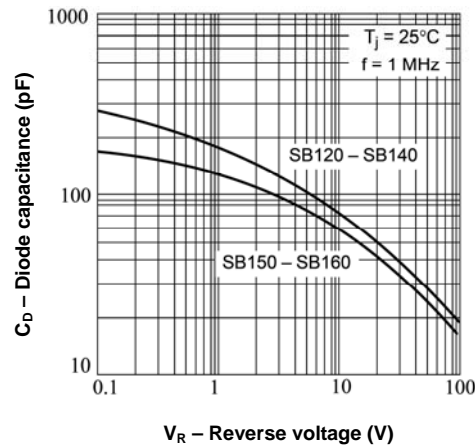


Figure 4. Typ. diode capacitance vs. reverse voltage

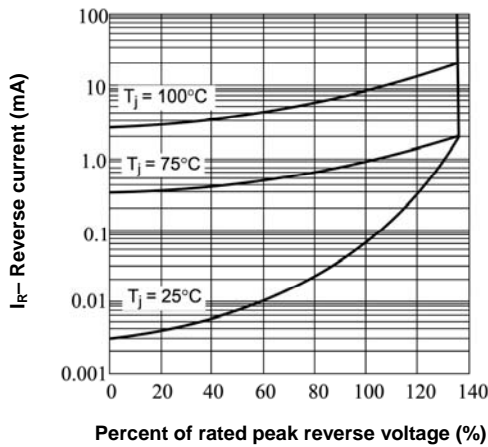
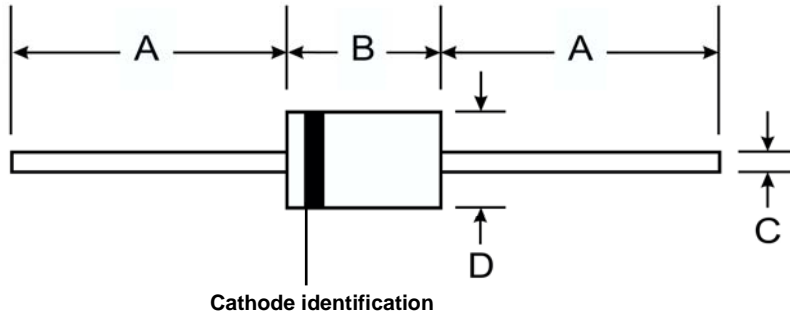


Figure 5. Typ. reverse current vs. percent of rated peak reverse voltage

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Dimensions in mm



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	1.000	---	25.40	---
B	0.166	0.205	4.10	5.20
C	0.028	0.034	0.70	0.90
D	0.080	0.107	2.00	2.70

Case: molded plastic DO-41

Polarity: cathode band

Marking: type number

Marking

