



SB50-18

Schottky Barrier Diode (Twin Type · Cathode Common)

180V, 5A Rectifier

Applications

- High frequency rectification (switching regulators, converters, choppers).

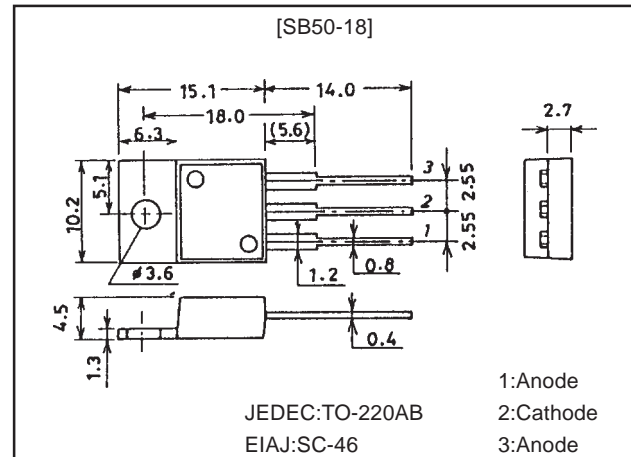
Features

- Low forward voltage (V_F max=0.85V).
- Fast reverse recovery time (t_{rr} max=40ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

Package Dimensions

unit:mm

1159B



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

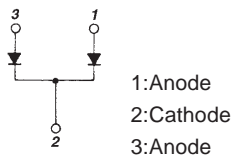
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		180	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		190	V
Average Output Current	I_O	50Hz, resistive load, $T_c=103^\circ\text{C}$	5	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	60	A
Junction Temperature	T_j		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

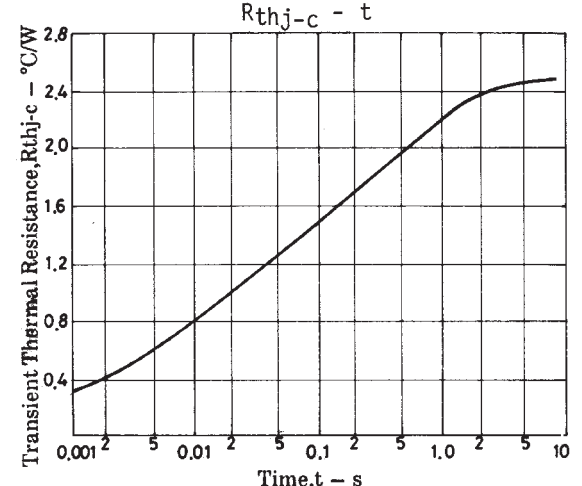
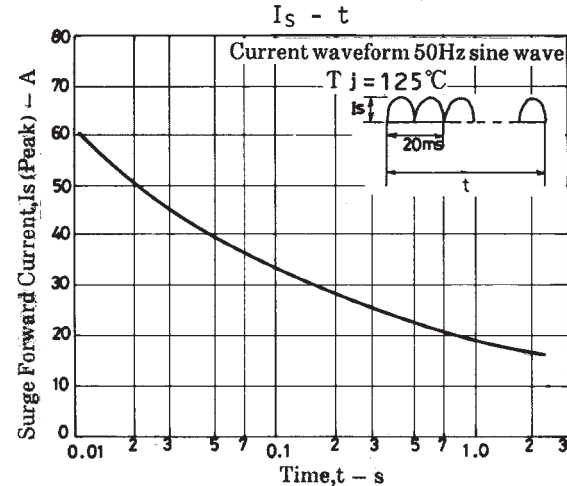
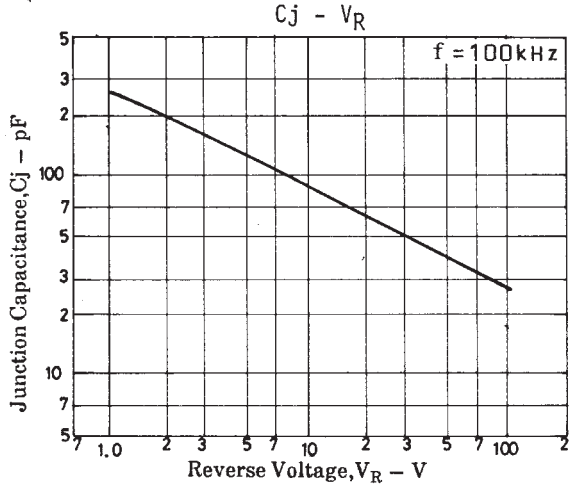
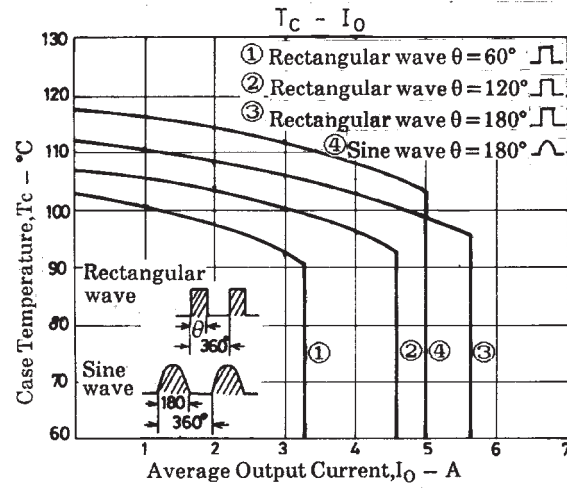
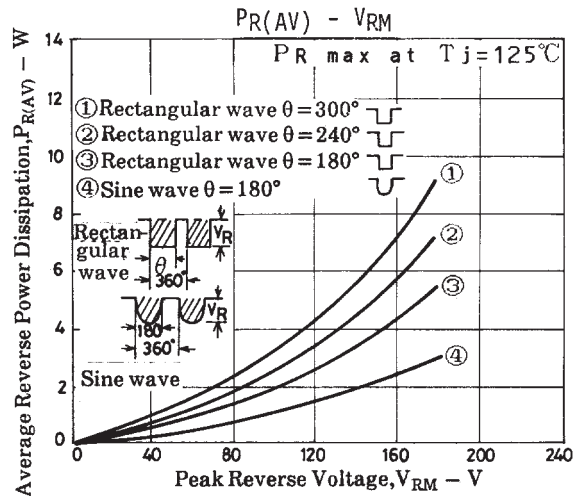
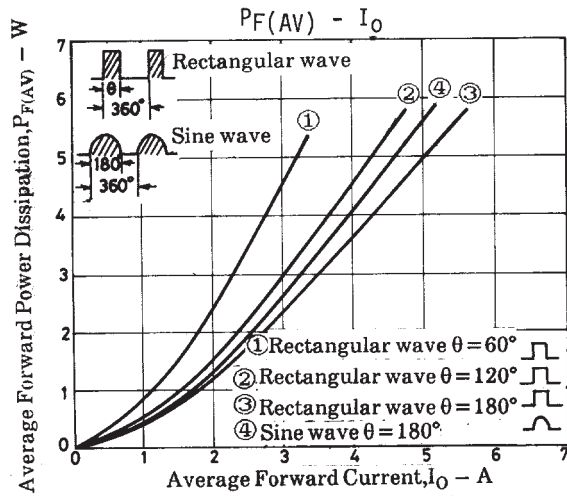
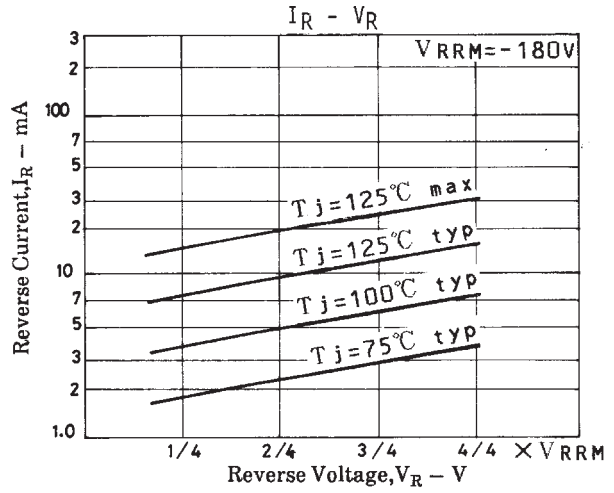
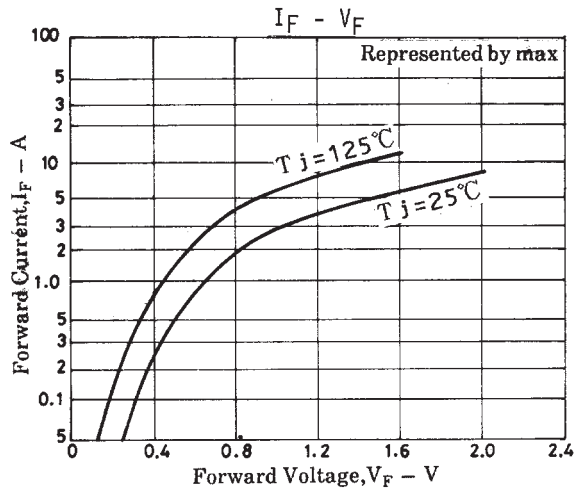
Electrical Characteristics

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=2\text{mA}$, $T_j=25^\circ\text{C}$, *	180			V
Forward Voltage	V_F	$I_F=2\text{A}$, $T_j=25^\circ\text{C}$, *			0.85	V
Reverse Current	I_R	$V_R=90\text{V}$, $T_j=25^\circ\text{C}$, *			0.4	mA
Reverse Recovery Time	t_{rr}	$I_F=2\text{A}$, $T_j=25^\circ\text{C}$, *, $-dI_F/dt=10\text{A}/\mu\text{s}$			40	ns
Thermal Resistance	R_{thj-c}	Junction-Case:Smoothed DC			2.5	$^\circ\text{C}/\text{W}$

Note*: Value per element

Electrical Connection





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