

# SB100-05J — Schottky Barrier Diode (Twin Type · Cathode Common) 50V, 10A Rectifier

## Applications

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

## Features

- Low forward voltage ( $V_F$  max=0.55V).
- Short reverse recovery time ( $t_{rr}$  max=60ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.
- Micaless package facilitating easy mounting.

## Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		50	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		55	V
Average Output Current	$I_O$	50Hz resistive load, $T_c=97^\circ\text{C}$	10	A
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	100	A
Junction Temperature	$T_J$		-55 to +125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

### Electrical Characteristics at $T_a=25^\circ\text{C}$

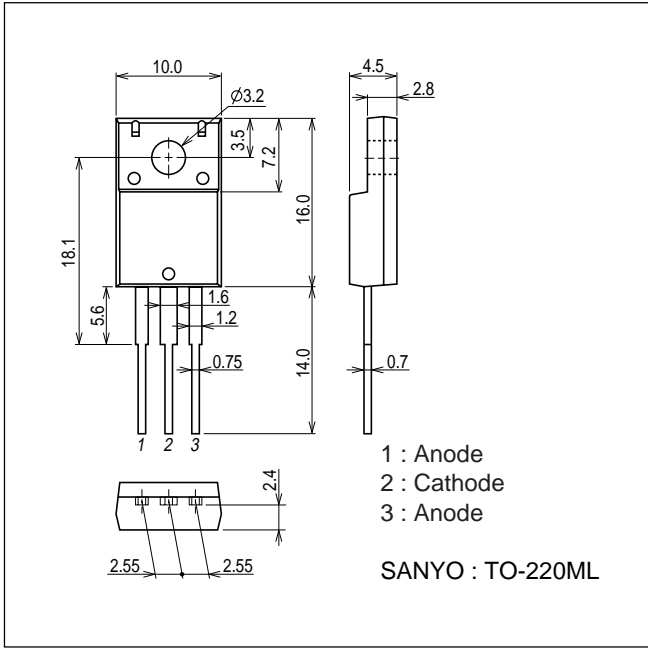
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=2\text{mA}$ , $T_J=25^\circ\text{C}$ *	50			V
Forward Voltage	$V_F$	$I_F=5\text{A}$ , $T_J=25^\circ\text{C}$ *			0.55	V
Reverse Current	$I_R$	$V_R=25\text{V}$ , $T_J=25^\circ\text{C}$ *			0.5	mA
Reverse recovery time	$t_{rr}$	$I_F=2\text{A}$ , $T_J=25^\circ\text{C}$ , $-dI_F / dt=10\text{A} / \mu\text{s}$ *			60	ns
Thermal Resistance	$R_{th(j-c)}$	Junction-Case : Smoothed DC			3.5	$^\circ\text{C} / \text{W}$

Note) \* : Value per element

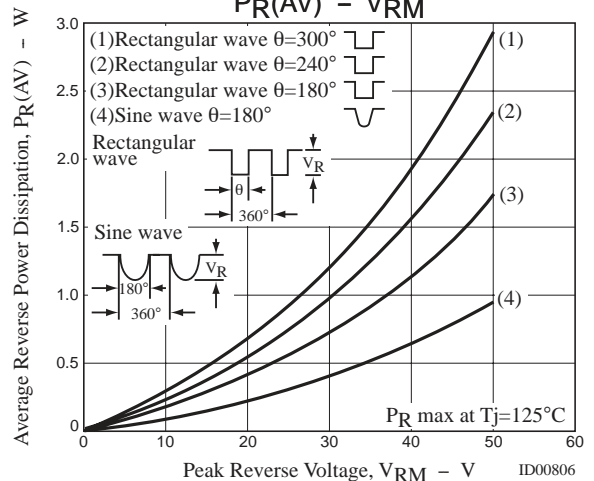
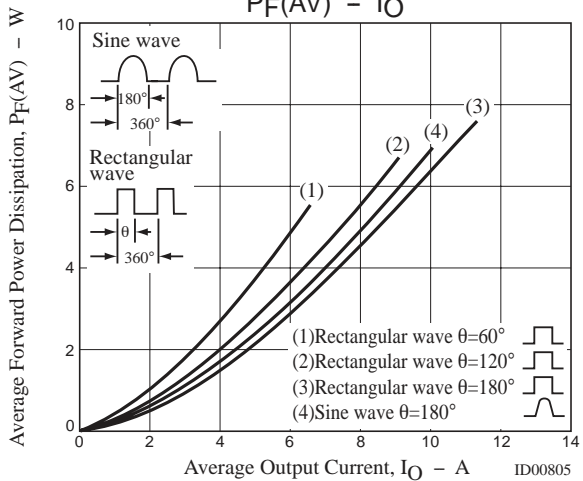
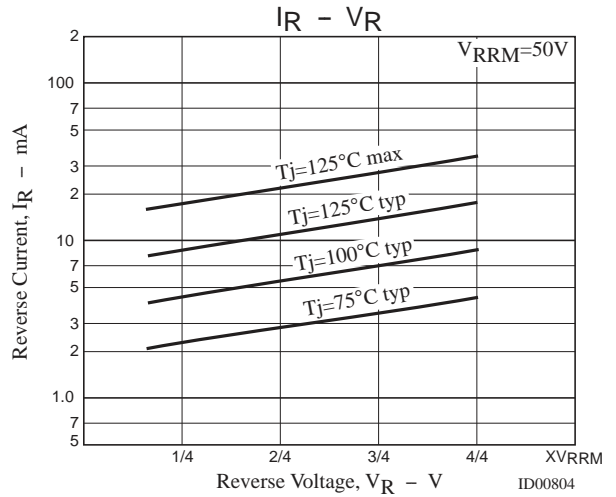
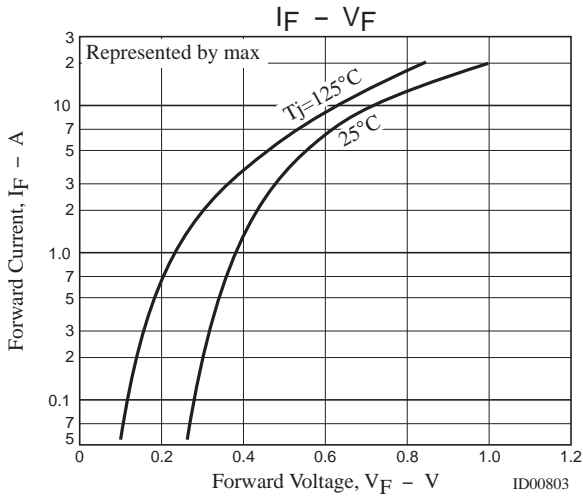
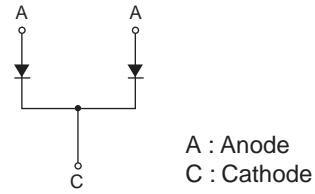
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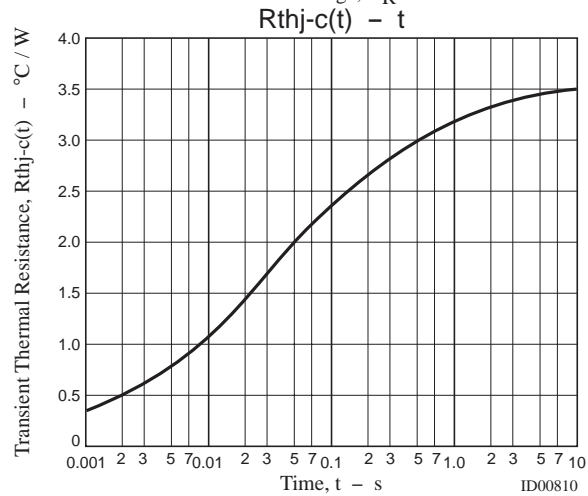
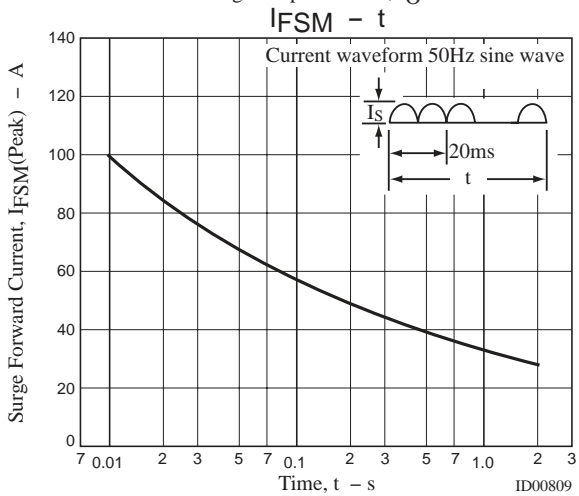
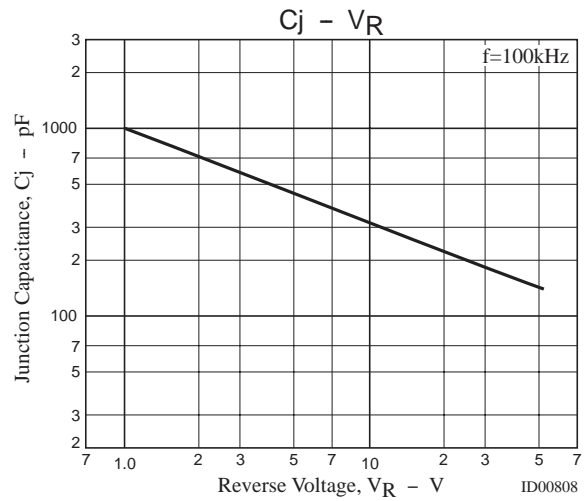
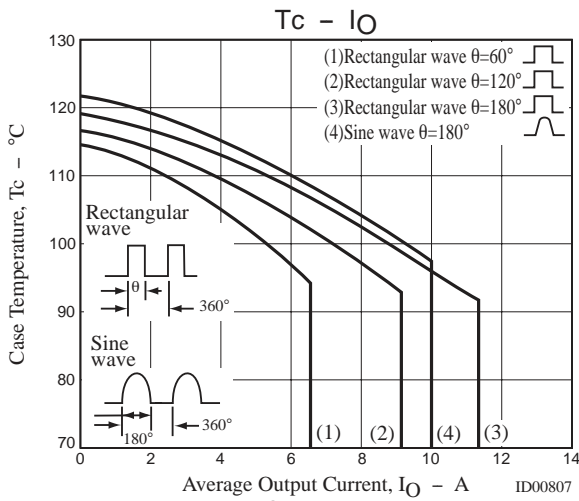
Package Dimensions

unit : mm (typ)  
7508-001



Electrical Connection





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