



# SANYO Semiconductors DATA SHEET

## SBJ200-04J — Schottky Barrier Diode (Twin Type · Cathode Common) 40V, 20A Rectifier

### Applications

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

### Features

- Small reverse current ( $I_R$  typ=10 $\mu$ A) due to adoption of MRJ (Multi Refined PN Junction) structure.
- Low forward voltage ( $V_F$  typ=0.48V).
- High temperature operation is possible ( $T_j$ =150°C).
- High surge breakdown voltage.

### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		40	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		44	V
Average Output Current	$I_O$	50Hz resistive load, sine wave $T_c=95^\circ\text{C}$	20	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	120	A
Junction Temperature	$T_j$		-55 to +150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=2\text{mA}$ , $T_j=25^\circ\text{C}^*$	40			V
Forward Voltage	$V_F$	$I_F=10\text{A}$ , $T_j=25^\circ\text{C}^*$		0.48	0.54	V
Reverse Current	$I_R$	$V_R=20\text{V}$ , $T_j=25^\circ\text{C}^*$		10	100	$\mu\text{A}$
		$V_R=40\text{V}$ , $T_j=25^\circ\text{C}^*$		20	200	$\mu\text{A}$
Interterminal Capacitance	$C$	$V_R=10\text{V}$ , $T_j=25^\circ\text{C}^*$		510		pF
Thermal Resistance	$R_{th(j-c)}$	Junction-Case : Smoothed DC			3.2	$^\circ\text{C} / \text{W}$

Note) \* : Value per element

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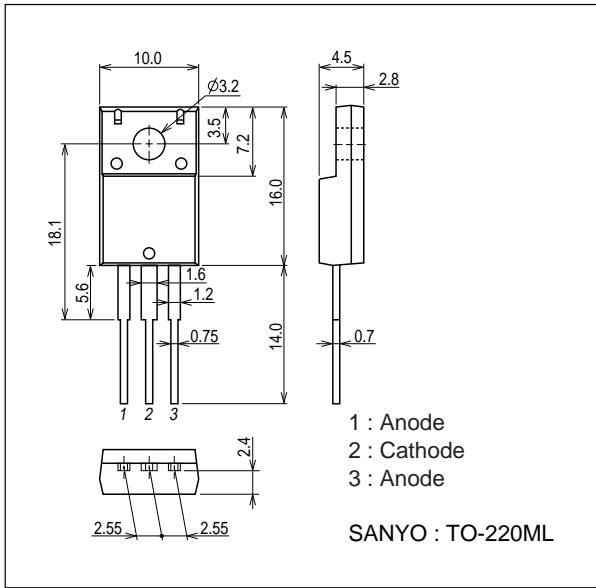
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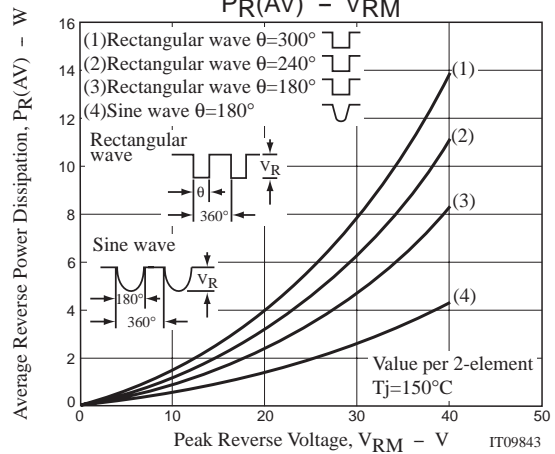
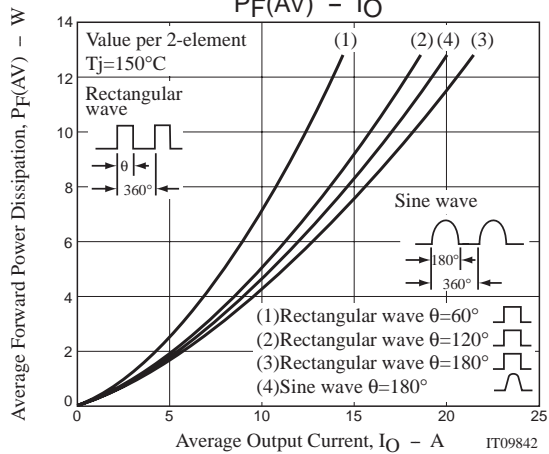
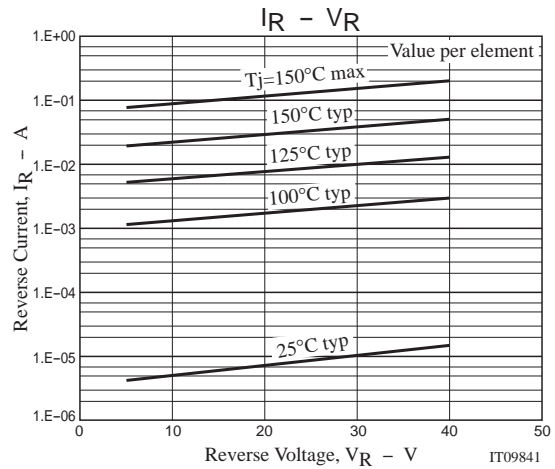
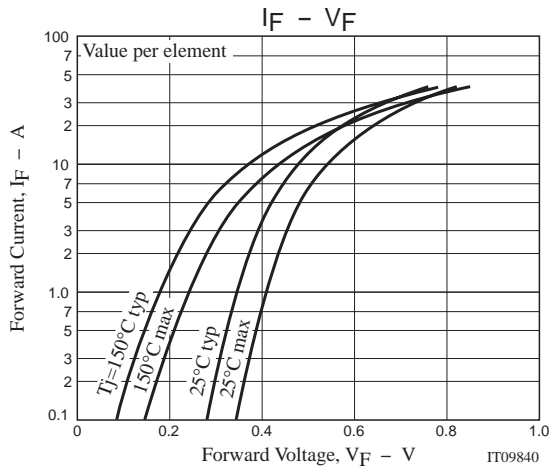
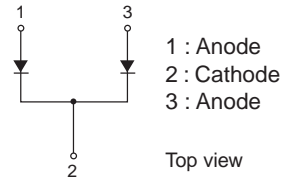
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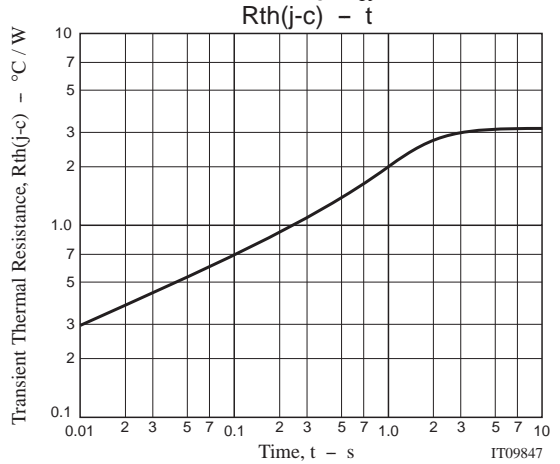
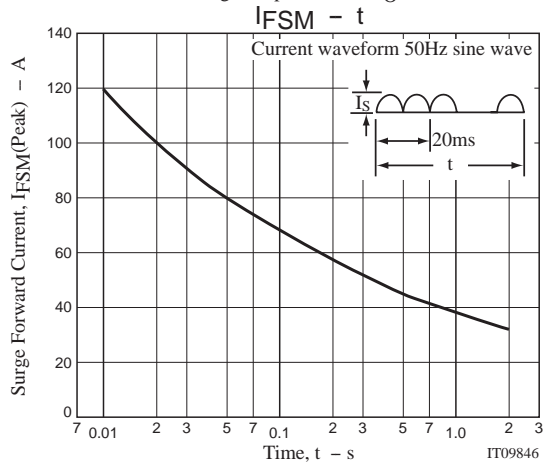
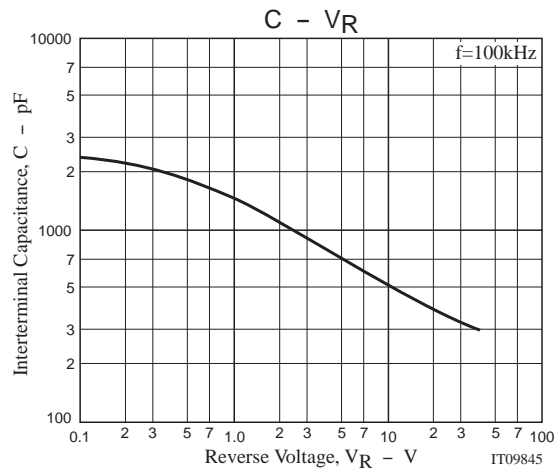
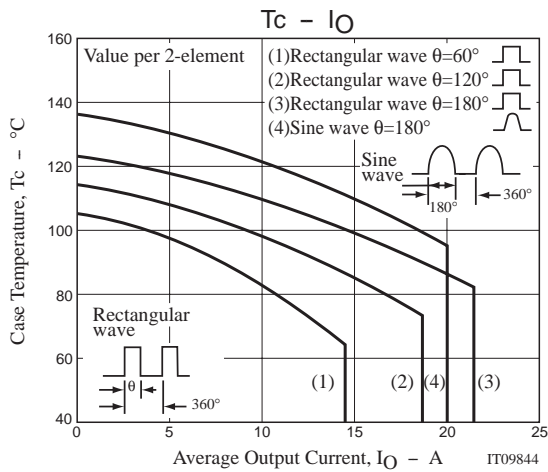
Package Dimensions

unit : mm  
7508-001



Electrical Connection





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