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## SANYO Semiconductors DATA SHEET

# SBT250-04Y — Schottky Barrier Diode (Twin Type · Cathode Common) 40V, 25A Rectifier

### Applications

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

### Features

- Guaranteed up to  $T_j=150^{\circ}\text{C}$ .
- Low forward voltage ( $V_F \text{ max}=0.55\text{V}$ ).
- Fast reverse recovery time.
- Low switching noise.
- High reliability due to highly reliable planar structure.
- Surface mount type device reducing the assembling time and facilitating compact and high-density assembly of SBT250-04Y-applied equipment.

### 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 $T_c=119^{\circ}\text{C}$	25	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	$V_R$	$I_R=3\text{mA}$ , $T_j=25^{\circ}\text{C}^*$	40			V
Forward Voltage	$V_F$	$I_F=10\text{A}$ , $T_j=25^{\circ}\text{C}^*$			0.55	V
Reverse Current	$I_R$	$V_R=20\text{V}$ , $T_j=25^{\circ}\text{C}^*$			0.3	mA
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			1.7	$^{\circ}\text{C}/\text{W}$

Note) \* : Value per element

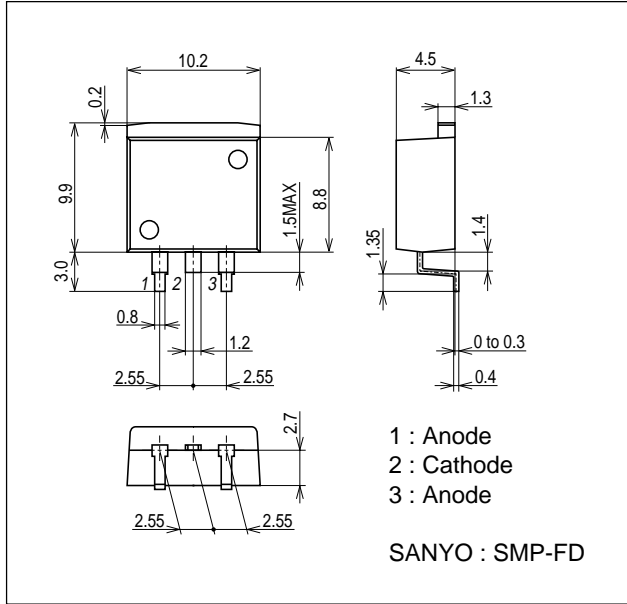
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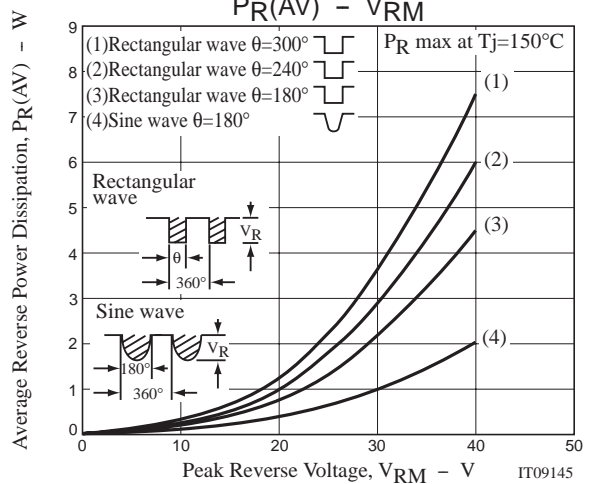
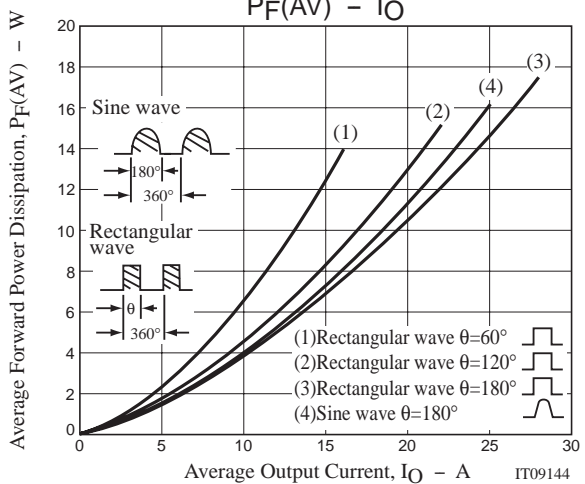
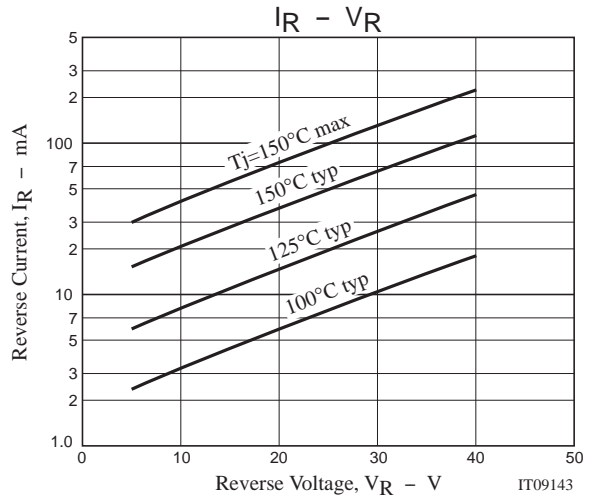
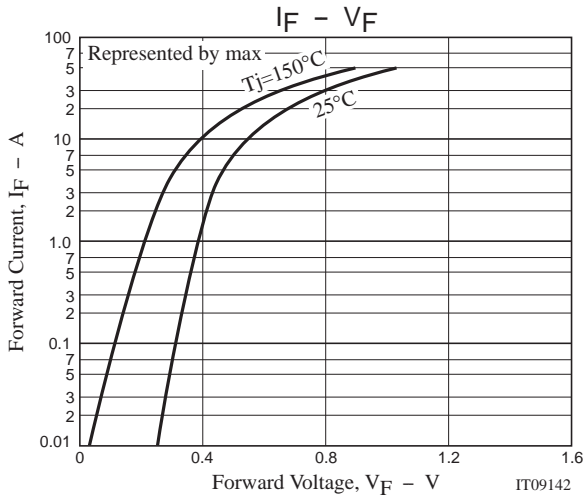
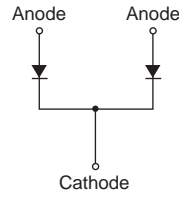
**SBT250-04Y**

**Package Dimensions**

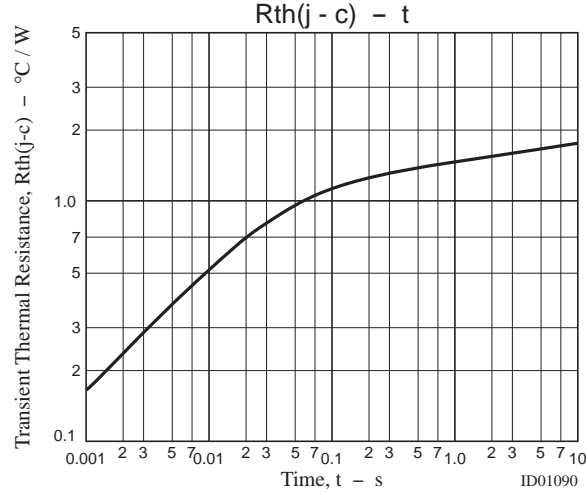
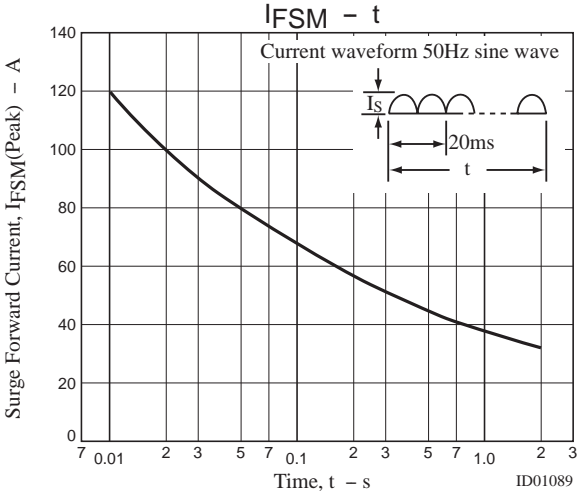
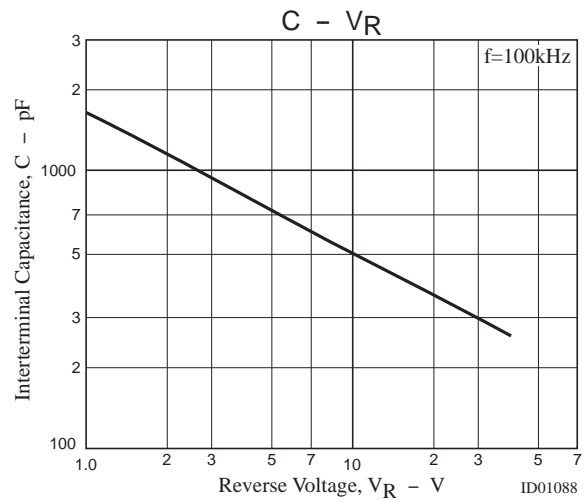
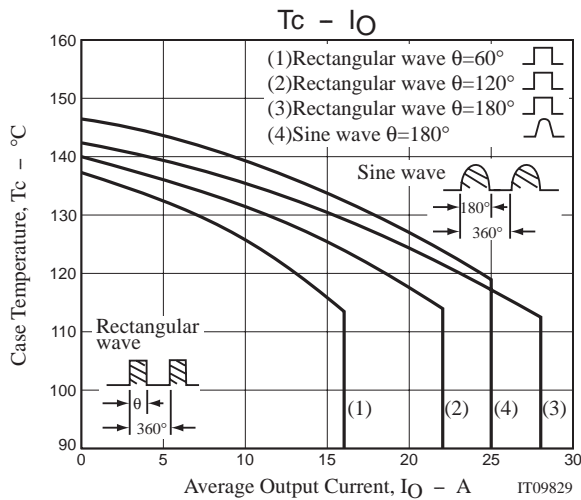
unit : mm  
7001-001



**Electrical Connection**



### SBT250-04Y



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