



SANYO Semiconductors

DATA SHEET

SBT250-04R

 — Schottky Barrier Diode (Twin Type · Cathode Common)

40V, 25A Rectifier

Applications

- High frequency rectification (switching regulators, converters, 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.
- 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	V_{RRM}		40	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		44	V
Average Output Current	I_O	50Hz resistive load, Sine wave $T_c=106^\circ\text{C}$	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 $T_a=25^\circ\text{C}$

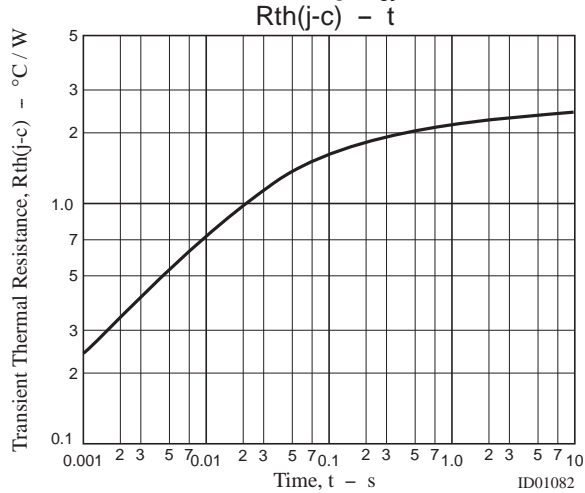
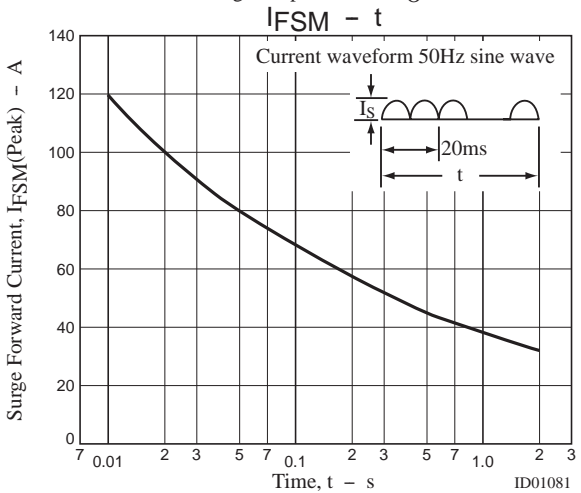
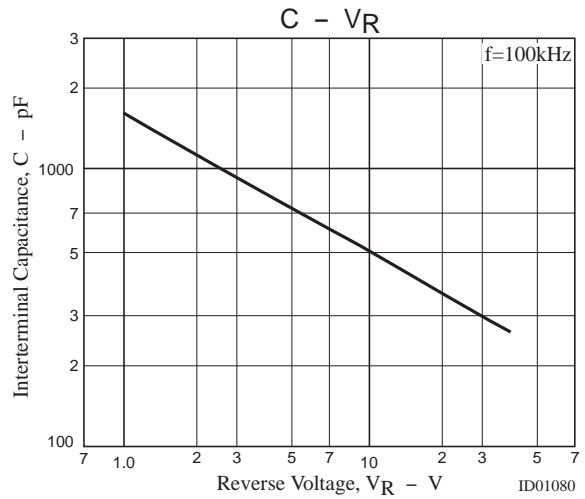
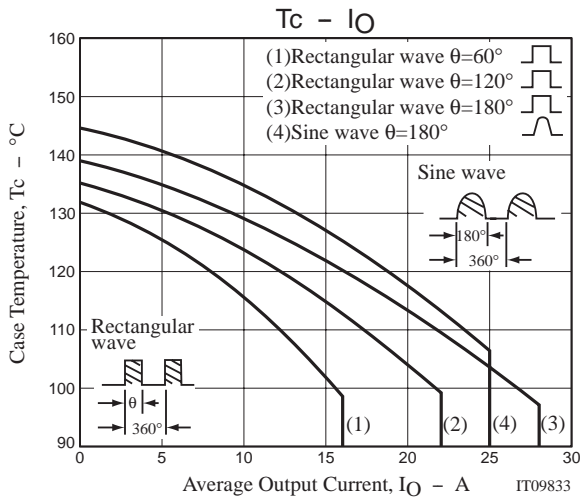
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=3\text{mA}$, $T_j=25^\circ\text{C}^*$	40			V
Forward Voltage	V_F	$I_F=10\text{A}$, $T_j=25^\circ\text{C}^*$			0.55	V
Reverse Current	I_R	$V_R=20\text{V}$, $T_j=25^\circ\text{C}^*$			0.3	mA
Interterminal Capacitance	C	$V_R=10\text{V}$, $T_j=25^\circ\text{C}^*$		510		pF
Thermal Resistance	$R_{th(j-c)}$	Junction-Case : Smoothed DC			2.4	$^\circ\text{C}/\text{W}$

Note) * : Value per element

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