

SB50-18 — Schottky Barrier Diode (Twin Type · Cathode Common) 180V, 50A Rectifier

Applications

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

Features

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

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=2\text{mA}$, $T_J=25^\circ\text{C}$ *	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	$R_{th(j-c)}$	Junction-Case : Smoothed DC			2.5	$^\circ\text{C} / \text{W}$

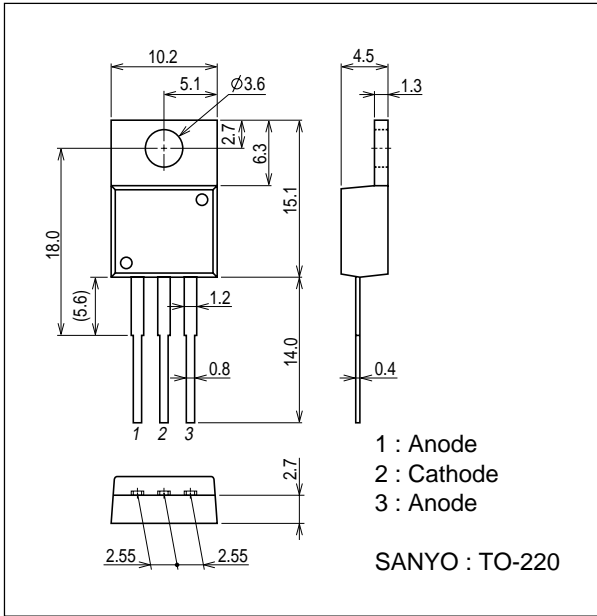
Note) * : Value per element

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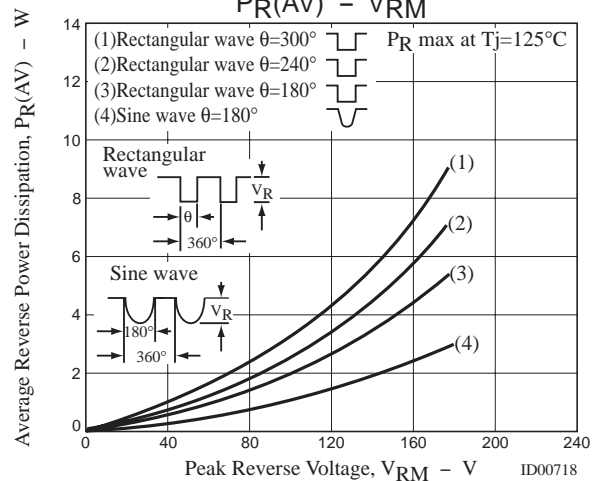
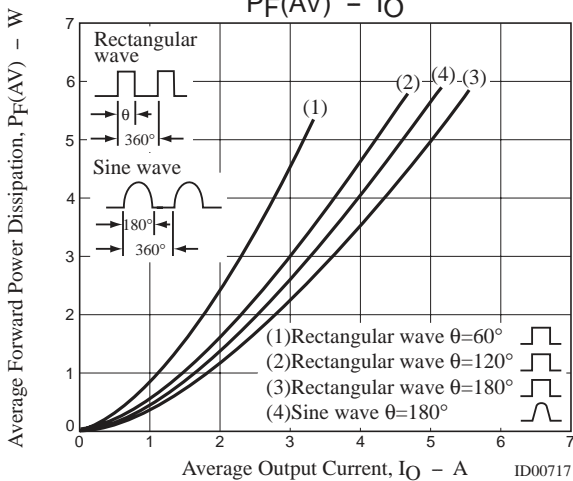
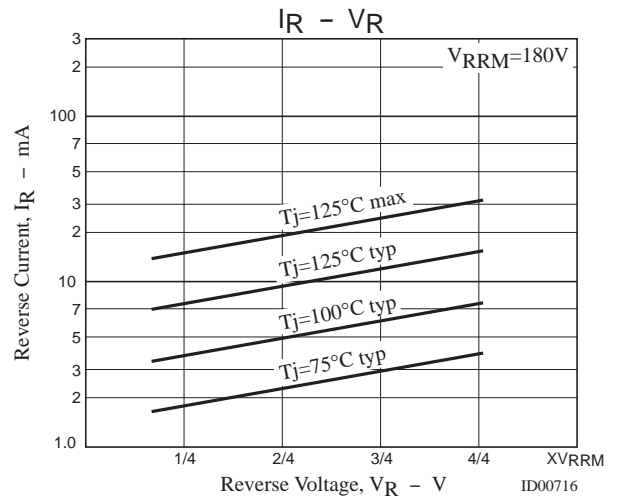
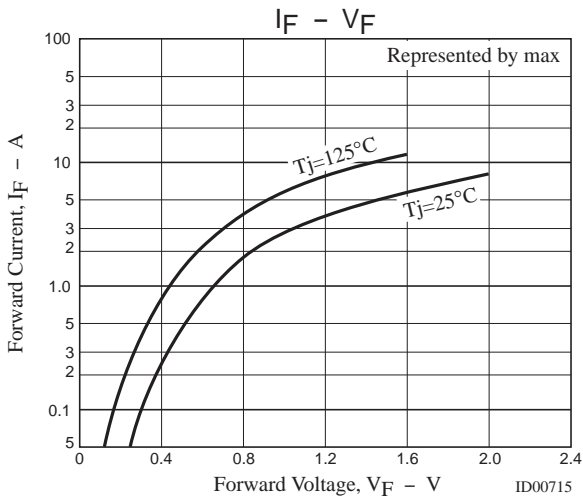
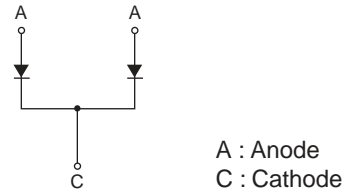
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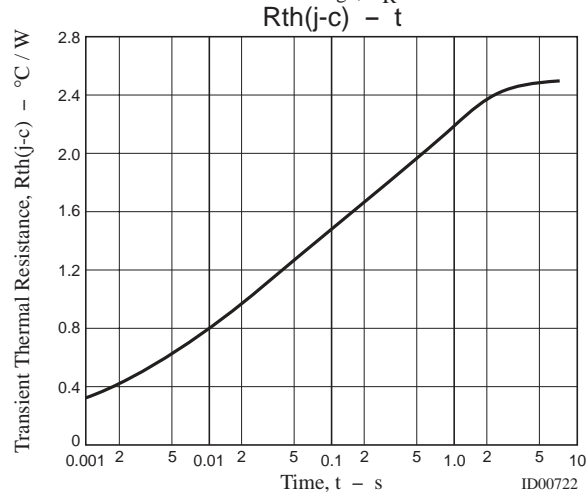
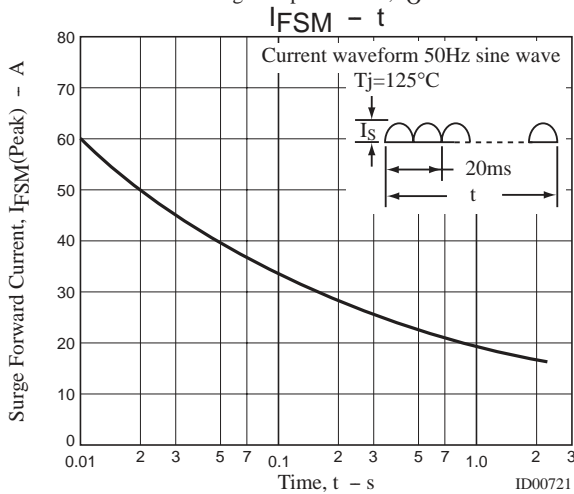
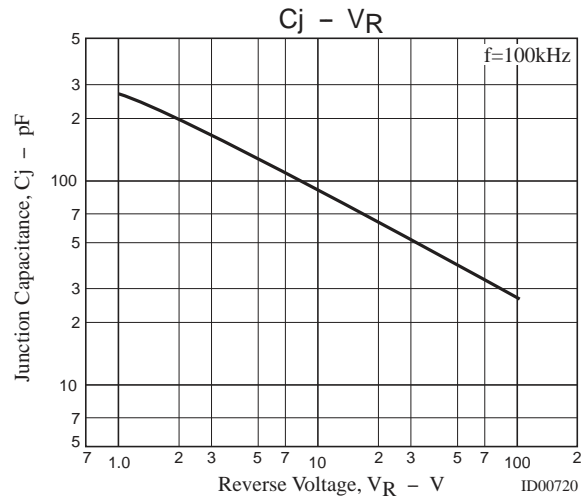
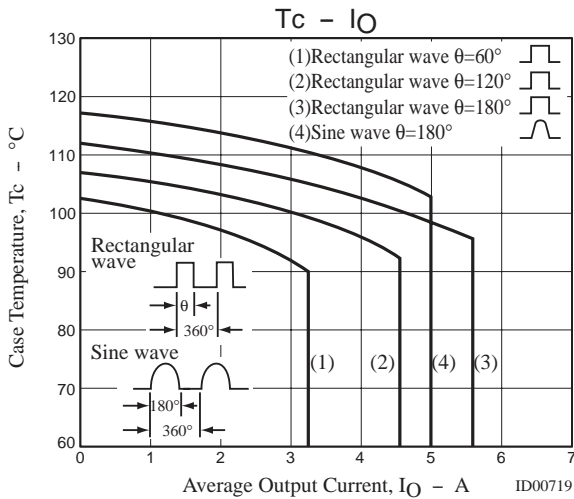
Package Dimensions

unit : mm (typ)
7507-003



Electrical Connection





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