Ordering number:EN4567

SB40W03T

Schottky Barrier Diode (Twin Type · Cathode Common)

30V, 4A Rectifier

Applications

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

Features

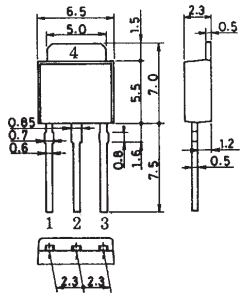
· Low forward voltage (V_F max=0.55V).
· Fast reverse recovery time (trr max=30ns).
· Low switching noise.
· Low leakage current and high reliability due to highly reliable planar structure.

Package Dimensions

unit:mm

1254A

[SB40W03T]



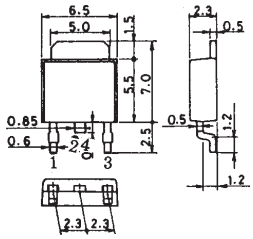
1:Anode
2:Cathode
3:Anode
4:Cathode

SANYO:TP

unit:mm

1257A

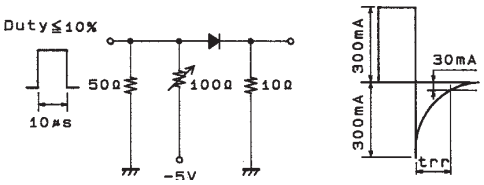
[SB40W03T]



1:Anode
2:Cathode
3:Anode
4:Cathode

SANYO:TP-FA

trr Test Circuit



Specifications

Absolute Maximum Ratings at Ta = 25˚C (Value per element)

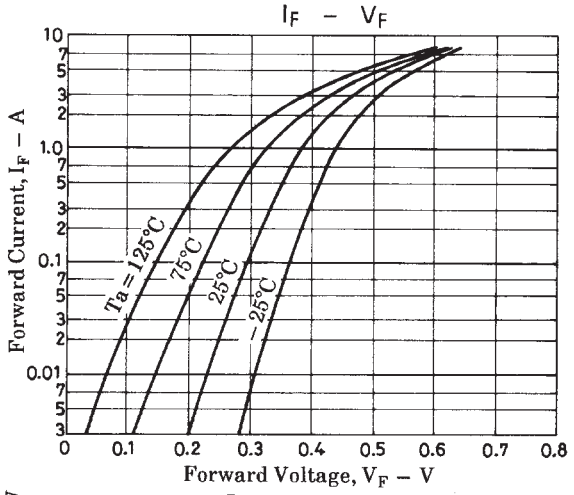
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		35	V
Average Output Current	I_O	50Hz, resistive load, Tc=111˚C	4	A
	I_O	50Hz, resistive load, Tc=92˚C, Total rating	8	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	40	A
Junction Temperature	Tj		–55 to +125	˚C
Storage Temperature	Tstg		–55 to +125	˚C

Electrical Characteristics at Ta = 25˚C (Value per element)

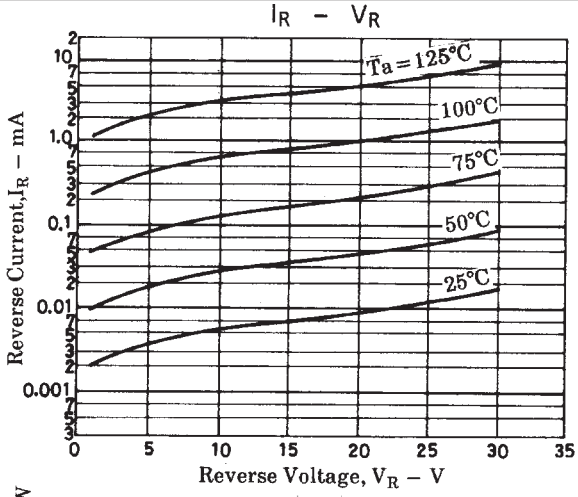
Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=1mA	30			V
Forward Voltage	V_F(1)	I_F=4A			0.55	V
	V_F(2)	I_F=1A			0.45	V
Reverse Current	I_R	V_R=15V			200	μA
Interterminal Capacitance	C	V_R=10V, f=1MHz		160		pF
Reverse Recovery Time	trr	I_F=I_R=300mA , See specified Test Circuit.			30	ns
Thermal Resistance (Junction-Ambient)	Rth(j-a)			90		˚C/W
Thermal Resistance (Junction-Case)	Rth(j-c)			5		˚C/W

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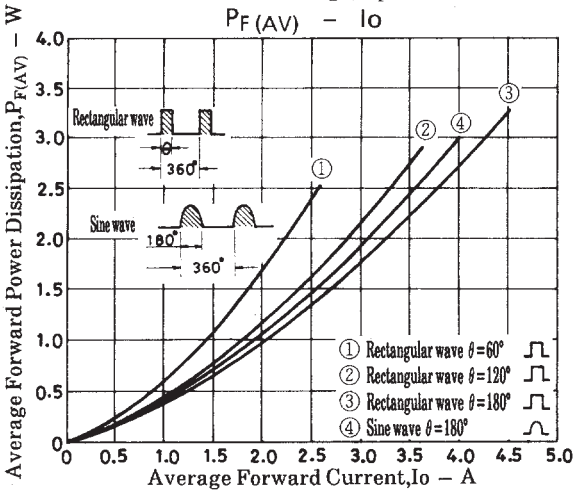
$I_F - V_F$



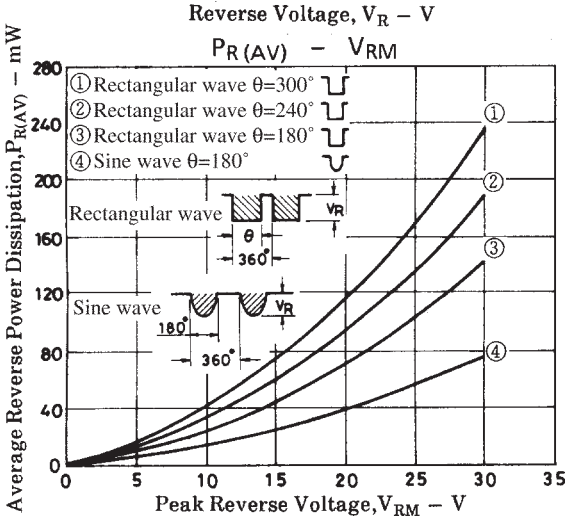
$I_R - V_R$



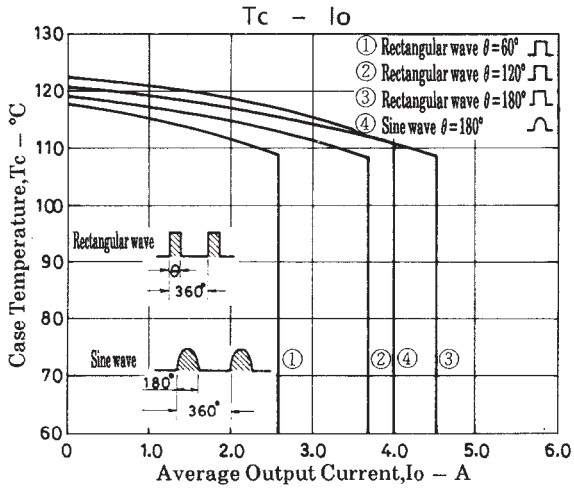
$P_{F(AV)} - Io$



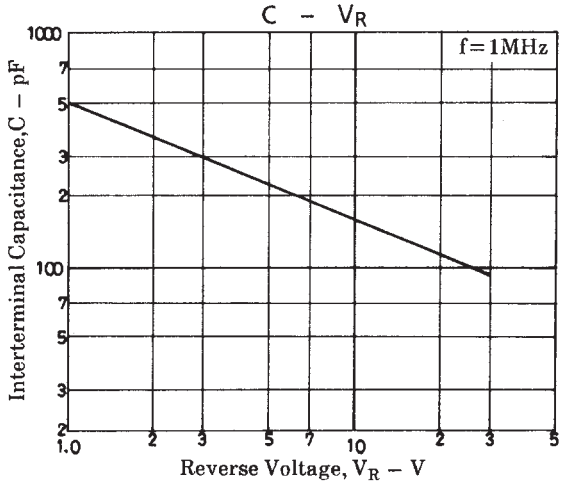
$P_{R(AV)} - V_{RM}$



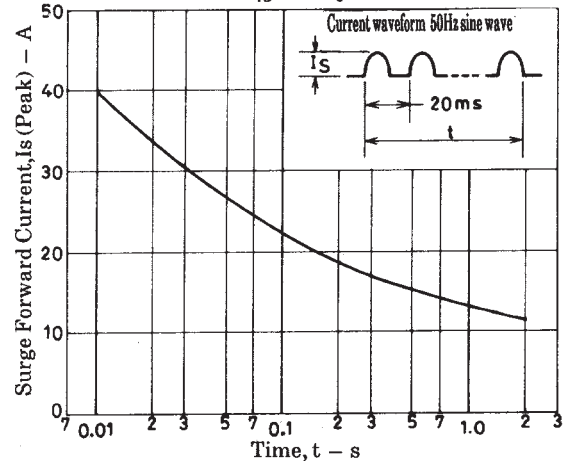
Tc – Io



C – V_R



Is – t



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