



SB40-03T

Schottky Barrier Diode

30V, 4A Rectifier

Applications

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

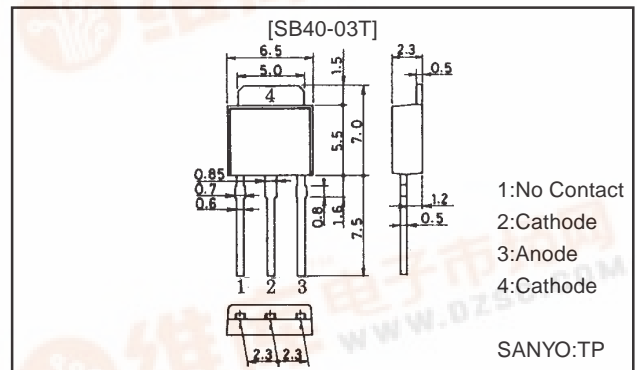
Features

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

Package Dimensions

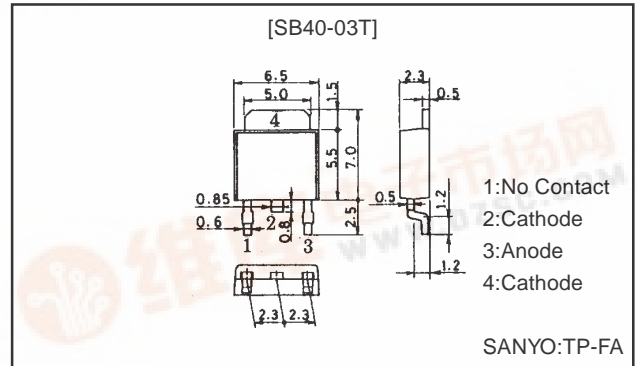
unit:mm

1255A

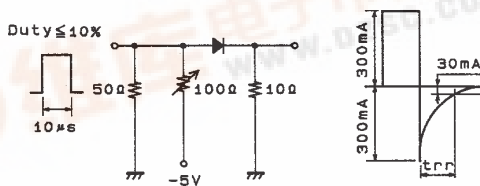


unit:mm

1256A



t_{rr} Test Circuit



Specifications

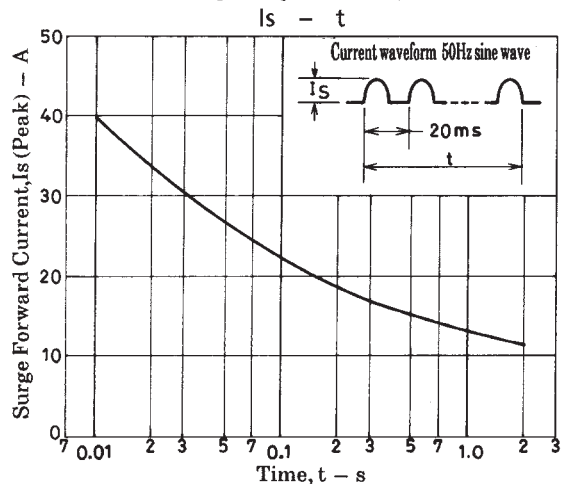
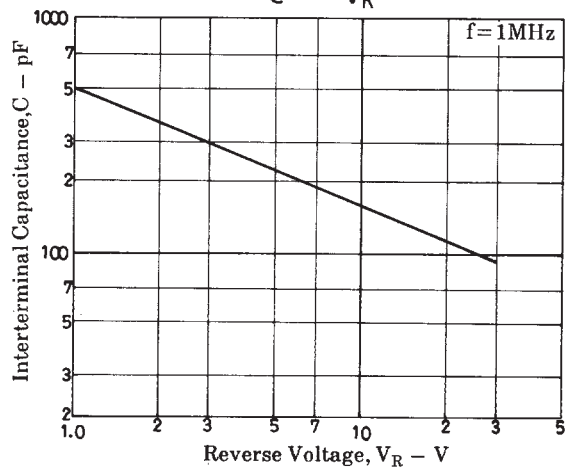
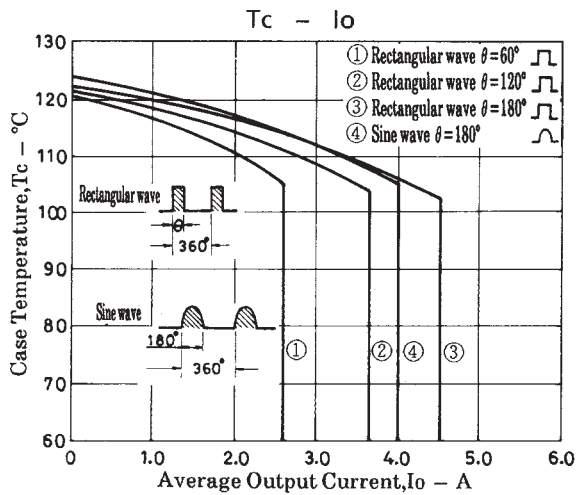
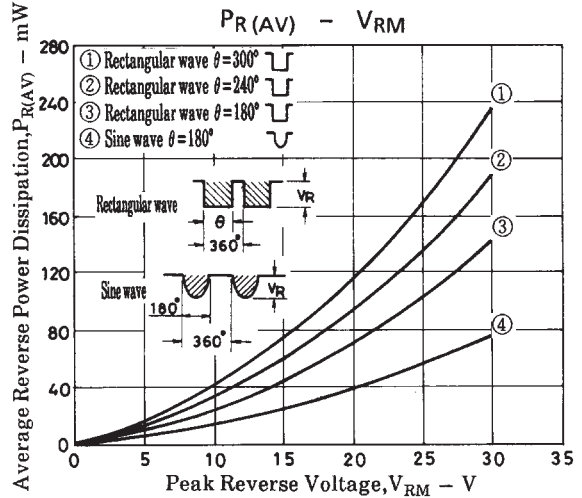
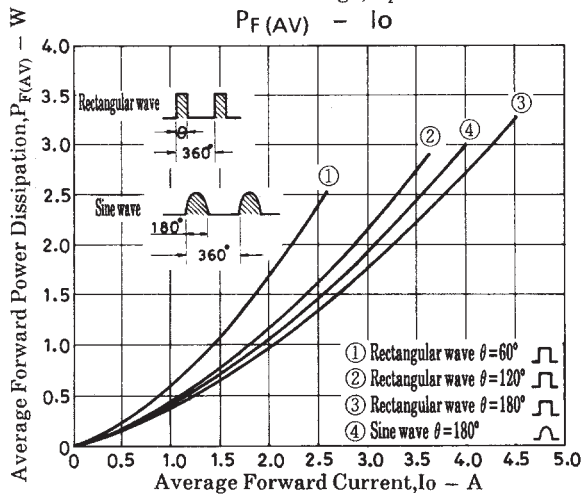
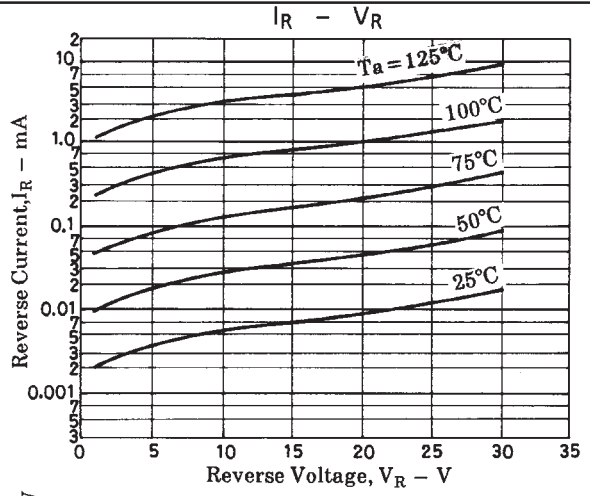
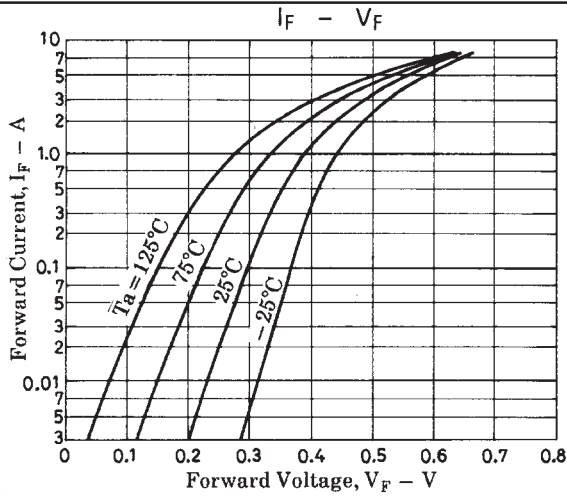
Absolute Maximum Ratings at Ta = 25°C

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, $T_c=105^\circ\text{C}$	4	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	40	A
Junction Temperature	T_J		-55 to +125	°C
Storage Temperature	T_{stg}		-55 to +125	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1\text{mA}$	30			V
Forward Voltage	$V_F(1)$	$I_F=4\text{A}$			0.55	V
	$V_F(2)$	$I_F=1\text{A}$			0.45	V
Reverse Current	I_R	$V_R=15\text{V}$			200	μA
Interterminal Capacitance	C	$V_R=10\text{V}, f=1\text{MHz}$		160		pF
Reverse Recovery Time	t _{rr}	$I_F=I_R=300\text{mA}$, See specified Test Circuit			30	ns
Thermal Resistance (Junction-Ambient)	R _{th(j-a)}			90		°C/W
Thermal Resistance (Junction-Case)	R _{th(j-c)}			6		°C/W

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