Ordering number:EN2931A

SB10-05A2, SB10-05A3

Schottky Barrier Diode

50V, 1.0A Rectifier

Applications

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

Features

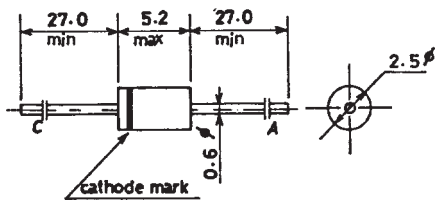
· Low forward voltage (V_F max=0.58V).
· Fast reverse recovery time (trr max=30ns).
· Low switching noise.
· Average rectified current (I_O=1.0A).

Package Dimensions

unit:mm

1208

[SB10-05A2]

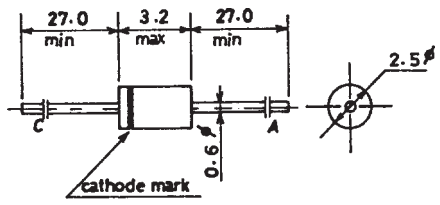


C:Cathode
A:Anode

unit:mm

1209

[SB10-05A3]



C:Cathode
A:Anode

Specifications

Absolute Maximum Ratings at Ta = 25˚C

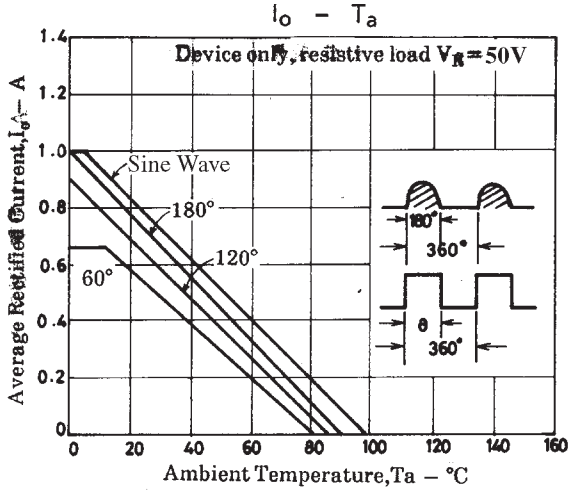
Parameter	Symbol	Conditions		Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}			50	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}			55	V
Average Rectified Current	I_O	SB10-05A2	50Hz, resistive load, sine wave, Ta=33˚C (L=8mm, 10×10mm² print land)	1.0	A
		SB10-05A3	50Hz, resistive load, sine wave, Ta=29˚C (L=3mm, 5×5mm² print land)	1.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle		25	A
Junction Temperature	Tj			125	˚C
Storage Temperature	Tstg			–40 to +125	˚C

Electrical Characteristics at Ta = 25˚C

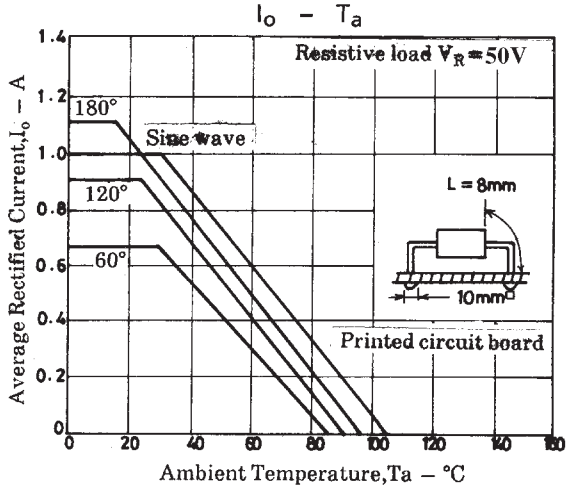
Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
Forward Voltage	V_F	I_F=1.0A			0.58	V
Reverse Current	I_R	V_R=50V			1.0	mA
Reverse Recovery Time	trr	I_{FM}=1A, –dI_F/dt=50A/μs			30	ns
Thermal Resistance (Junction-Ambient)	Rth(j-a)	No fin, device only			140	˚C/W

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TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

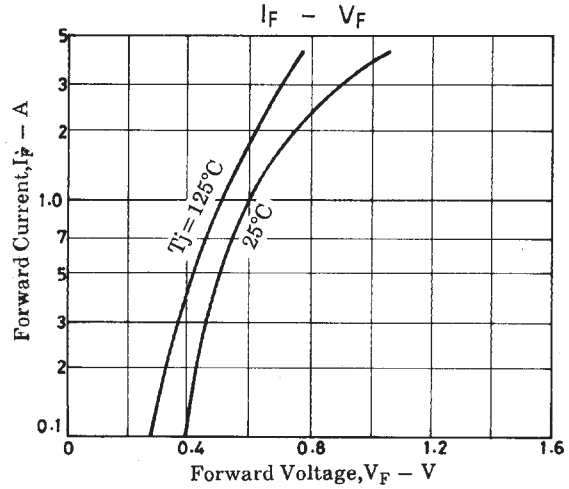
$I_O - T_a$



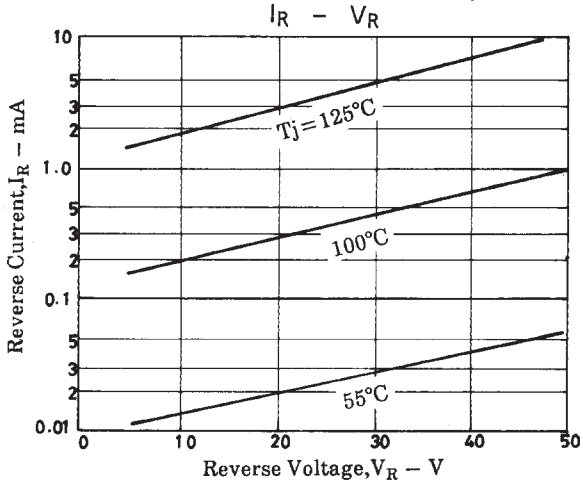
$I_O - T_a$



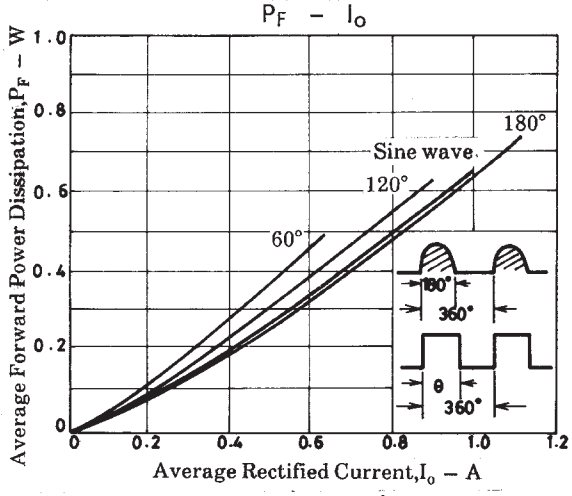
$I_F - V_F$



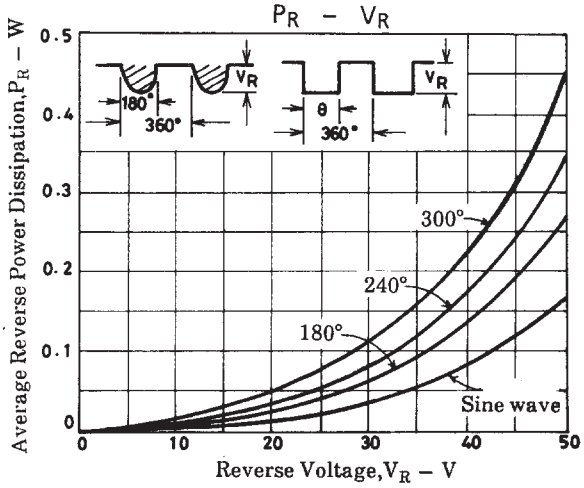
$I_R - V_R$



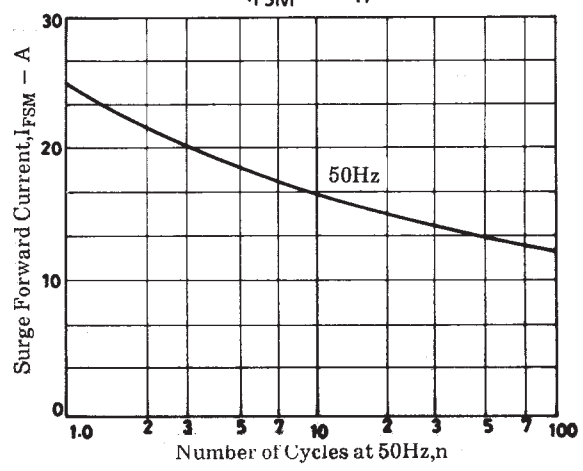
$P_F - I_O$



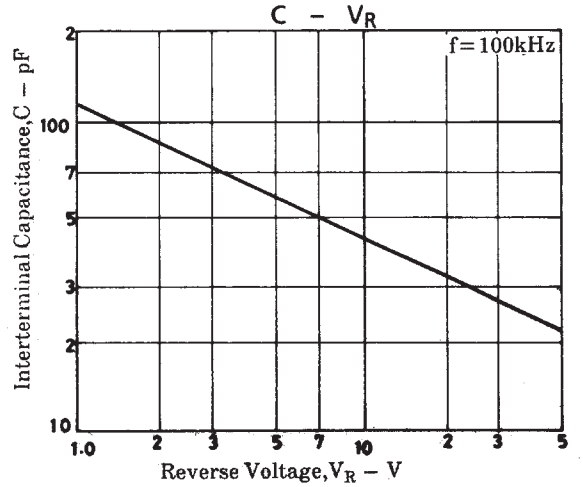
$P_R - V_R$



$I_{FSM} - n$



$C - V_R$



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