



SB10-05A2, SB10-05A3

Schottky Barrier Diode

50V, 1.0A Rectifier

Applications

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

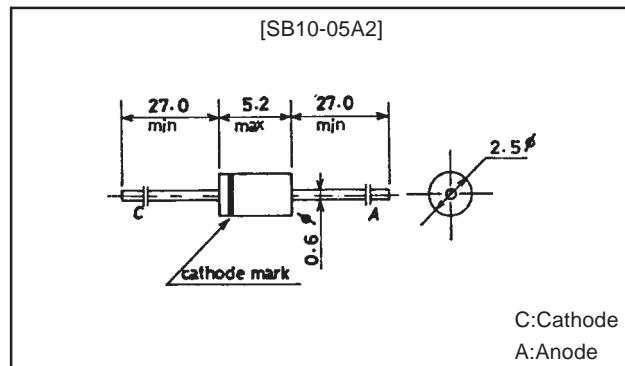
Features

- 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

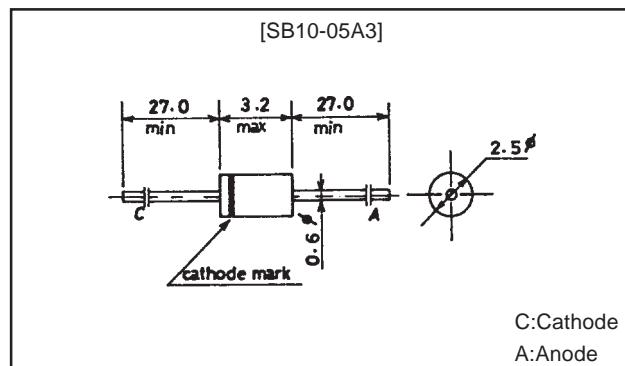
unit:mm

1208

C:Cathode
A:Anode

unit:mm

1209

C:Cathode
A:Anode

Specifications

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

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, $T_a=33^\circ\text{C}$ ($L=8\text{mm}$, $10\times10\text{mm}^2$ print land)		1.0	A
		SB10-05A3 50Hz, resistive load, sine wave, $T_a=29^\circ\text{C}$ ($L=3\text{mm}$, $5\times5\text{mm}^2$ print land)		1.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle		25	A
Junction Temperature	T_j			125	°C
Storage Temperature	T_{stg}			-40 to +125	°C

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

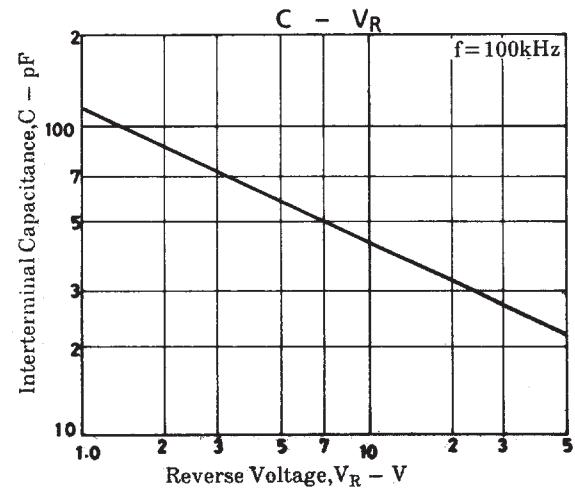
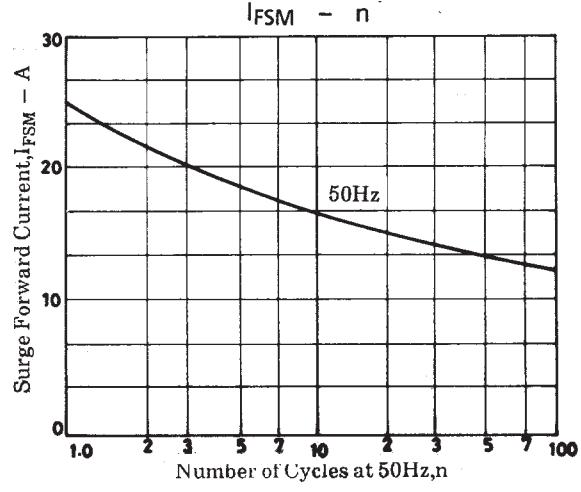
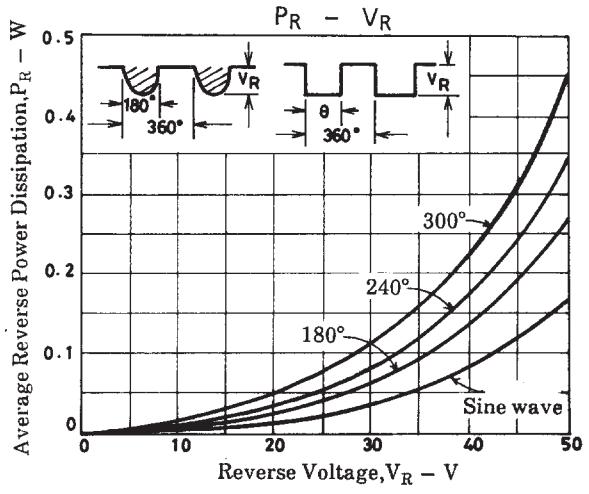
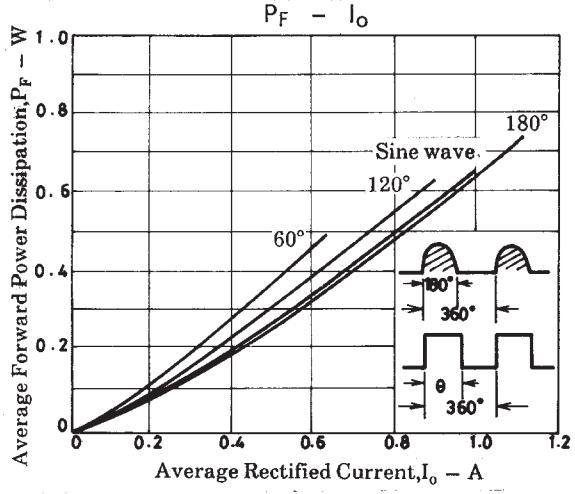
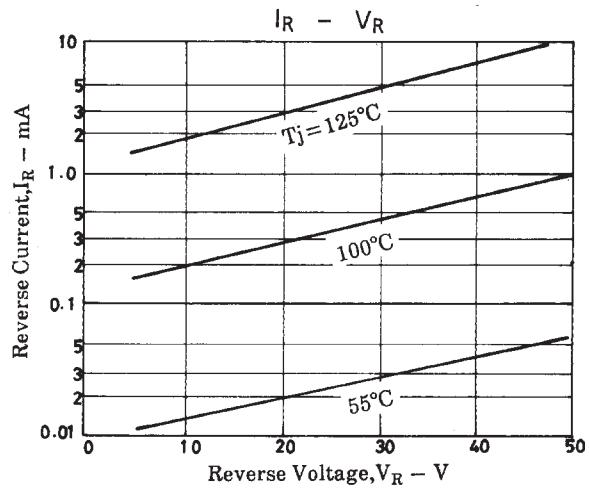
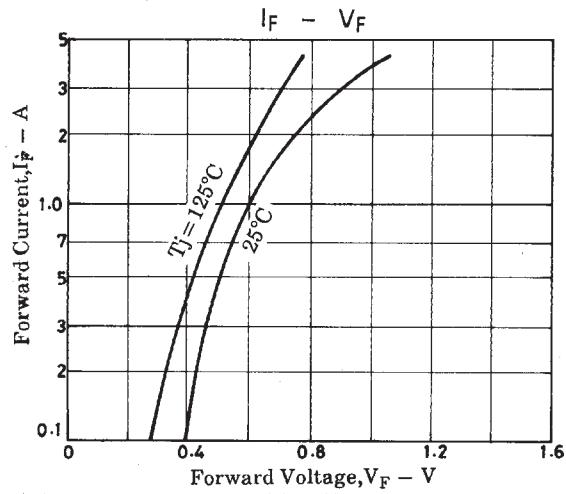
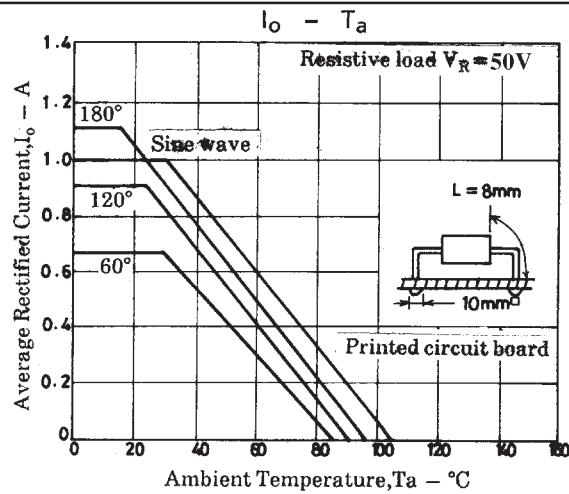
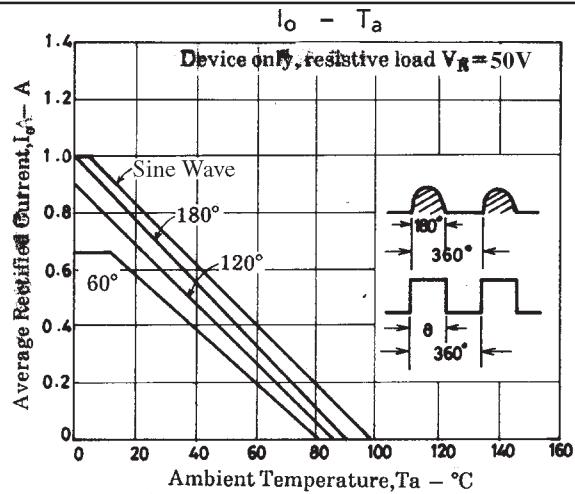
Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
Forward Voltage	V_F	$I_F=1.0\text{A}$			0.58	V
Reverse Current	I_R	$V_R=50\text{V}$			1.0	mA
Reverse Recovery Time	trr	$I_{FM}=1\text{A}$, $-dI/dt=50\text{A}/\mu\text{s}$			30	ns
Thermal Resistance (Junction-Ambient)	$R_{th(j-a)}$	No fin, device only			140	°C/W

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