



# SB40-05H

Schottky Barrier Diode (Twin Type · Cathode Common)

## 50V, 4A Rectifier

### Applications

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

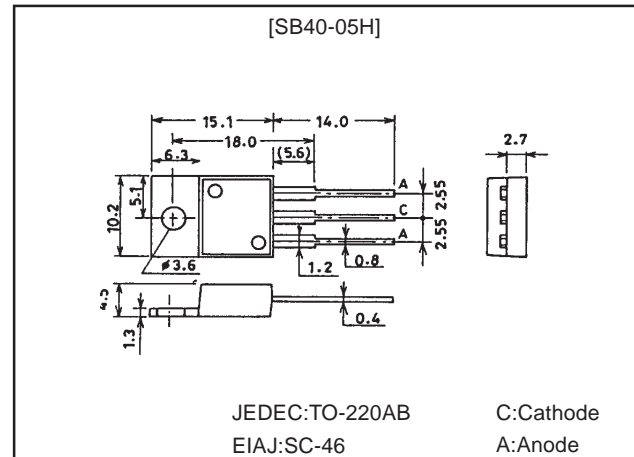
### Features

- Low forward voltage ( $V_F$  max=0.55V).
- Fast reverse recovery time ( $t_{rr}$  max=40ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

### Package Dimensions

unit:mm

1159A



### Specifications

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

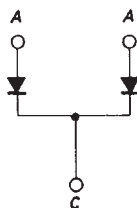
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		50	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		55	V
Average Output Current	$I_O$	50Hz, resistive load, $T_c=112^\circ\text{C}$	4	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	80	A
Junction Temperature	$T_j$		-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	$V_R$	$I_R=1\text{mA}$ , $T_j=25^\circ\text{C}$ , *	50			V
Forward Voltage	$V_F$	$I_F=2\text{A}$ , $T_j=25^\circ\text{C}$ , *			0.55	V
Reverse Current	$I_R$	$V_R=25\text{V}$ , $T_j=25^\circ\text{C}$ , *			0.2	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	$R_{th-c}$	Junction-Case:Smoothed DC			4	$^\circ\text{C}/\text{W}$

Note\*: Value per element

#### Electrical Connection



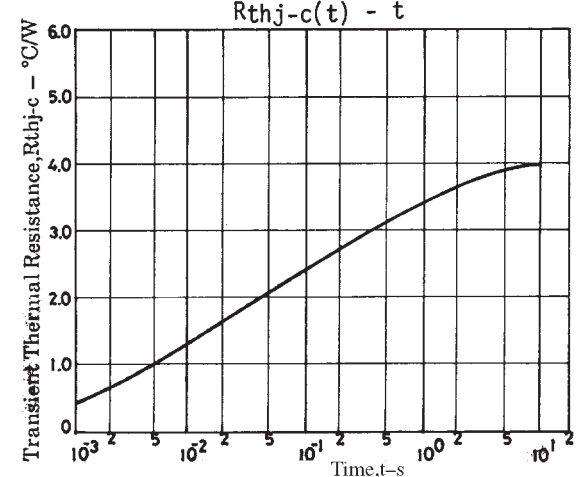
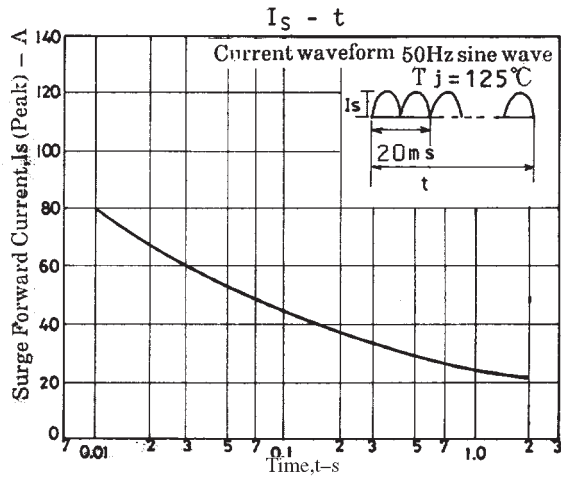
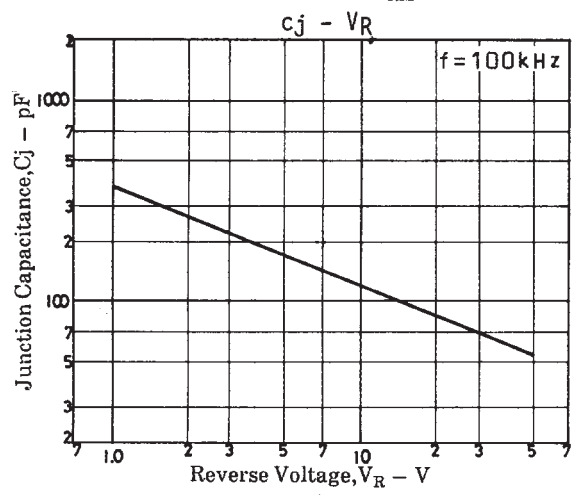
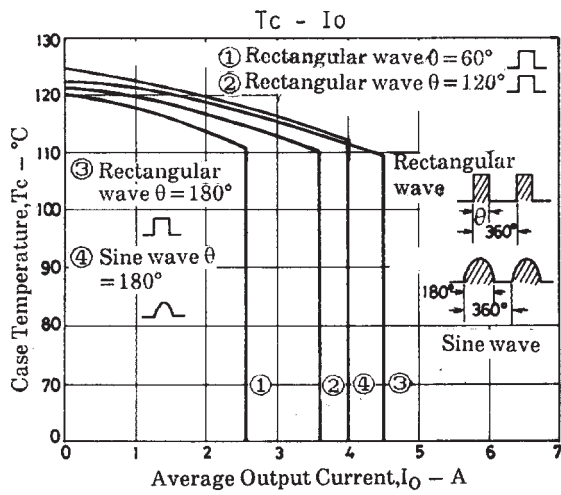
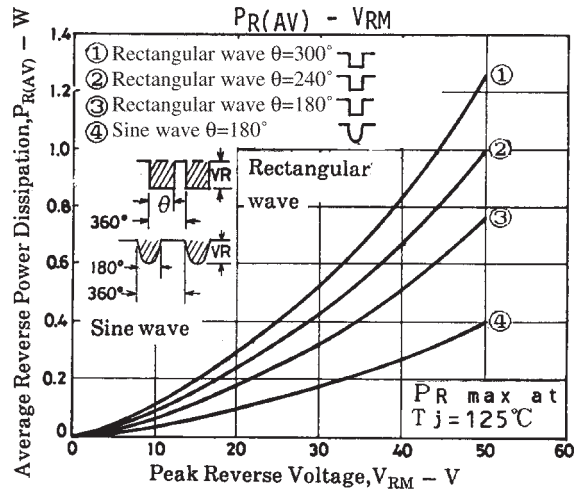
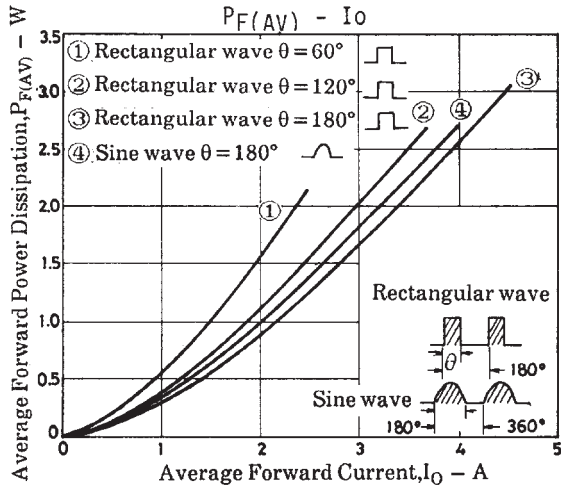
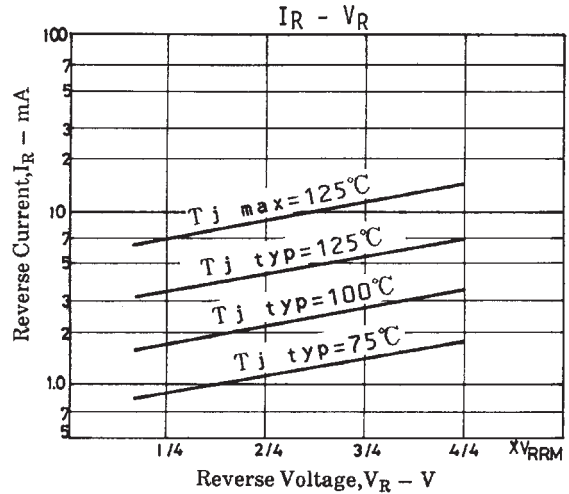
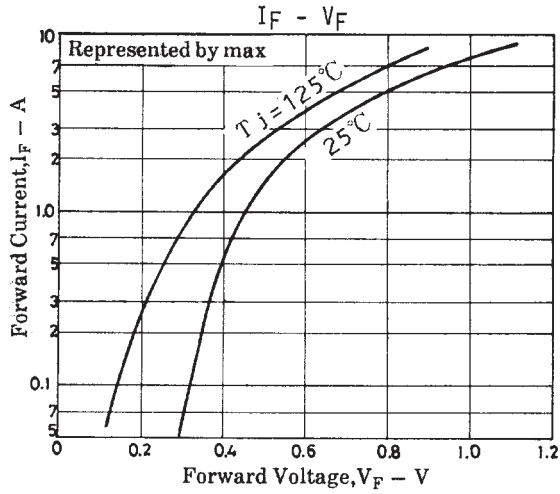
A:Anode  
C:Cathode

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