SB10-05P



Schottky Barrier Diode 50V, 1A, Low IR, Single

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Applications

• High Frequency Rectification (Switching Regulators, Converters, Choppers)

Features

- Low Forward Voltage (V_F max=0.55V)
- Short Reverse Recovery Time (t_{rr} max=10ns)
- Low Switching Noise
- Low Leakage Current and High Reliability Due to Reliable Planar Structure
- Pb-Free and RoHS Compliance

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Value	Unit				
Repetitive Peak Reverse Voltage	V _{RRM}		50	V				
Non-repetitive Peak Reverse Surge Voltage	VRSM		55	V				
Average Output Current	lo		1	Α				
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	10	Α				
Junction Temperature	Tj		–55 to +125	°C				
Storage Temperature	Tstg		–55 to +125	°C				

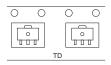
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Value			Unit
		Conditions	min	typ	max	Unit
Reverse Voltage	VR	I _R =300μA	50			V
Forward Voltage	VF	V _F =1A			0.55	V
Reverse Current	IR	V _R =25V			80	μА
Interterminal Capacitance	С	V _R =10V, f=1MHz		52		pF
Reverse Recovery Time	t _{rr}	I _F = I _R =100mA, See specification Test Circuit			10	ns
Thermal Resistance	Rthj-a (1)			300		°C/W
	Rthj-a (2)	Mounted on a ceramic board (250mm ² x0.8mm)		110		°C/W

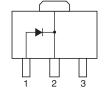
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

Packing Type: TD





Electrical Connection



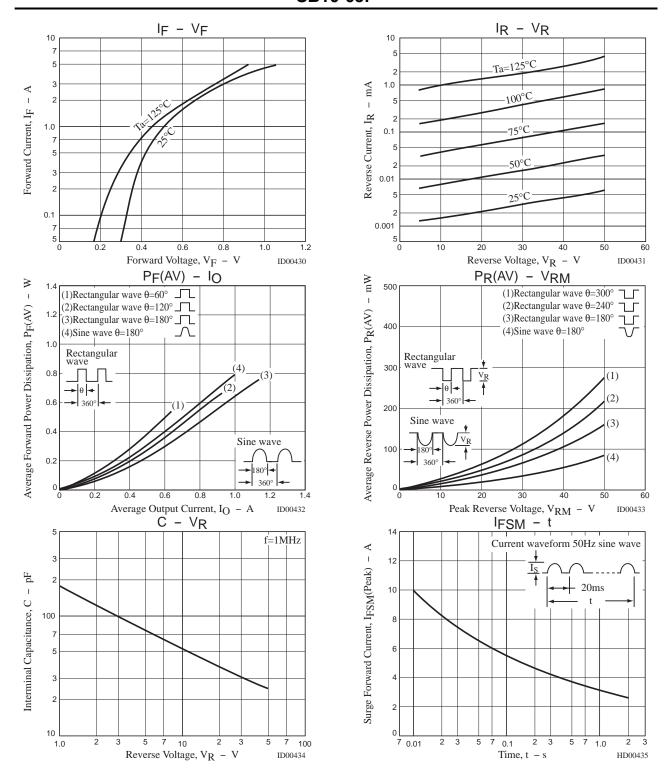
2 : Cathode

3: No Contact

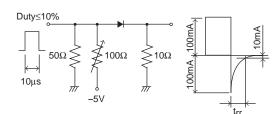
SOT-89 / PCP-1

ORDERING INFORMATION

See detailed ordering and shipping information on page 4 of this data sheet.



trr Test Circuit

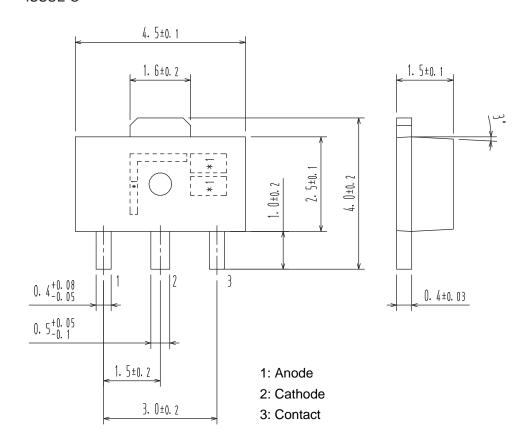


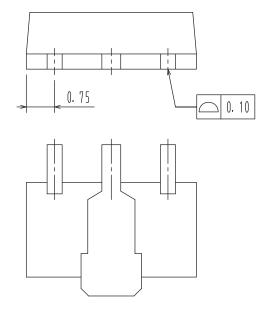
Package Dimensions

SB10-05P-TD-E unit: mm

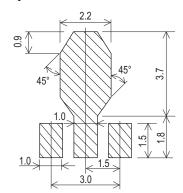
SOT-89 / PCP-1

CASE 419AU ISSUE O





Recommended Soldering Footprint



SB10-05P

ORDERING INFORMATION

Device	Package	Shipping	Note	
SB10-05P-TD-E	SOT-89, PCP-1	1,000 / Tape and Reel	Pb-Free	

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