

SBE002

50V, 1A Rectifier

Applications

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

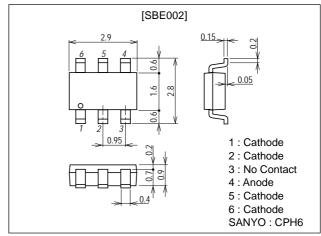
Features

- · Low forward voltage (V_F max=0.55V).
- · Fast reverse recovery time (t_{rr} max=10ns).
- · Low switching noise.
- · Low leakage current and high reliability due to highly reliable planar structure.
- · Ultrasmall package, permitting SBE002-applied sets to be compact and slim (mounting height 0.9mm).
- · Large allowable power dissipation.

Package Dimensions

unit:mm

1295



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 Output Current	lo		1	Α
Surge Forward Current	I _{FSM}	50Hz sine wave, 1 cycle	10	Α
Junction Temperature	Tj		-55 to +125	°C
Storage Temperature	Tstg		-55 to +125	°C

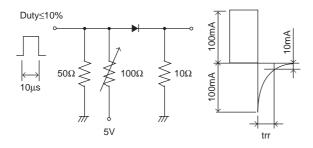
Electrical Characteristics at Ta = 25°C

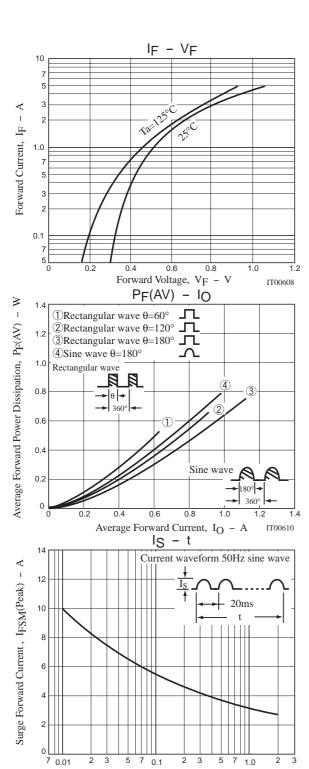
Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	Offic
Reverse Voltage	V_{R}	I _R =300μA	50			V
Forward Voltage	٧F	I _F =1A			0.55	V
Reverse Current	I _R	V _R =25V			80	μA
Interterminal Capacitance	С	V _R =10V, f=1MHz		52		pF
Reverse Recovery Time	t _{rr}	I _F =I _R =100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rthj-a	Mounted on a ceramic board (600mm ² ×0.8mm)		110		°C/W

Marking: SD

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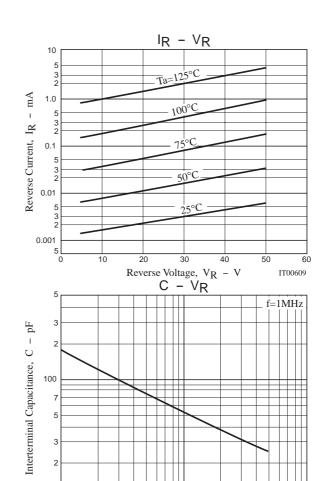
trr Specified Test Circuit





Time, t - s

IT00612



10

Reverse Voltage, $V_R - V$

10

1.0

100

SBE002

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