



SANYO Semiconductors

DATA SHEET

SBE602 — Schottky Barrier Diode (Twin Type · Cathode Common)

30V, 70mA 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-sized package permitting SBE602-applied sets to be made small and slim.

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$ (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		35	V
Average Output Current	I_O		70	mA
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	2	A
Junction Temperature	T_J		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$ (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=20\mu\text{A}$	30			V
Forward Voltage	V_F	$I_F=70\text{mA}$			0.55	V
Reverse Current	I_{R1}	$V_R=2\text{V}$			75	nA
	I_{R2}	$V_R=15\text{V}$			5.0	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		5.5		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$	Mounted in Cu-foiled area of $0.72\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy board		300		$^\circ\text{C} / \text{W}$

Marking : SQ

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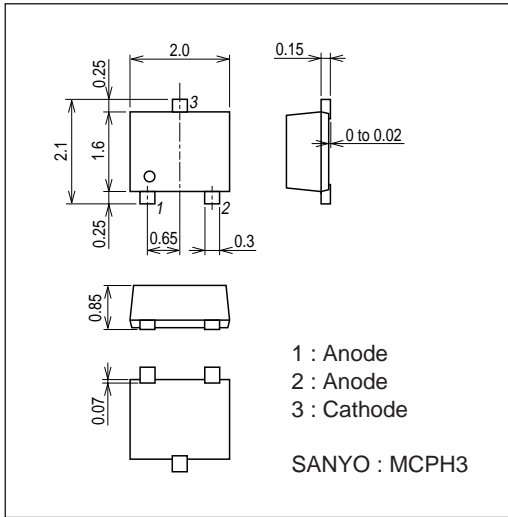
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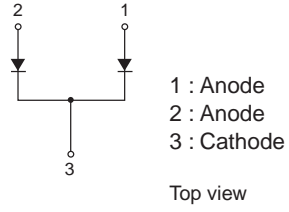
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Package Dimensions

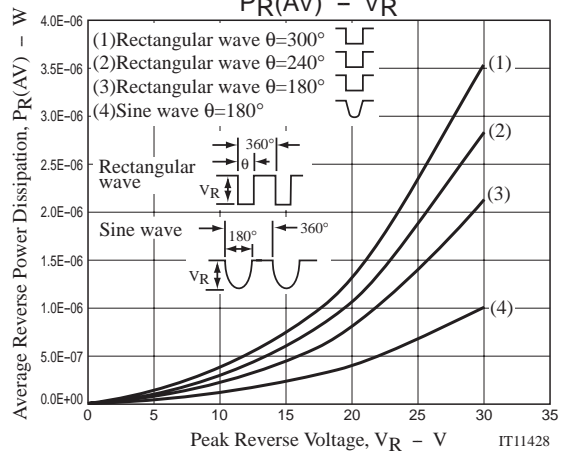
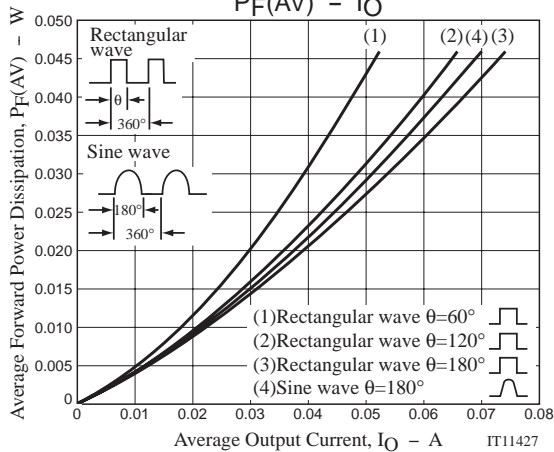
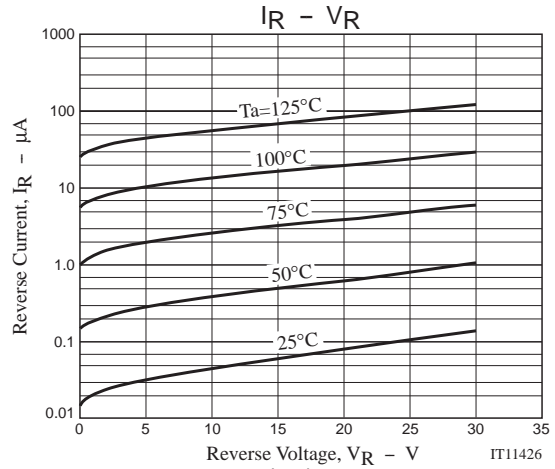
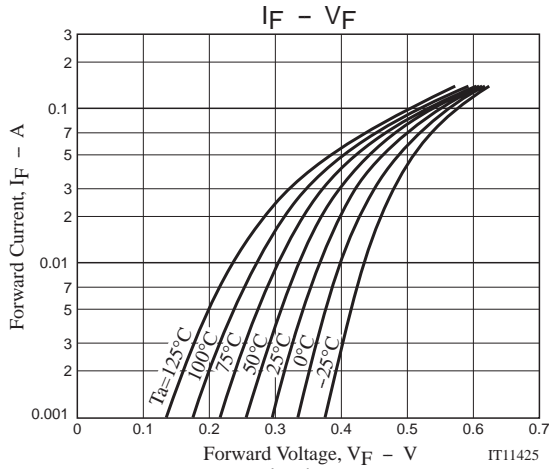
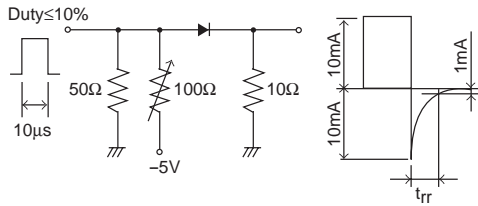
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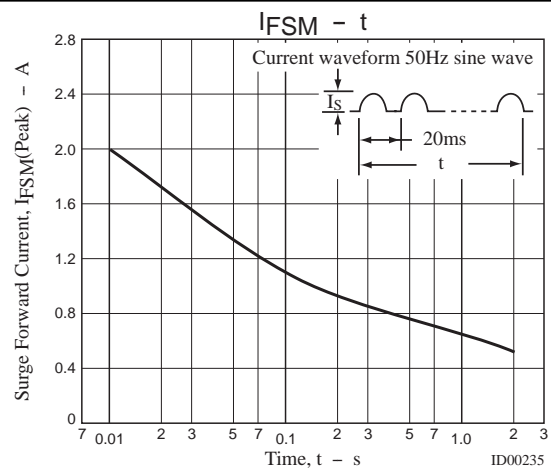
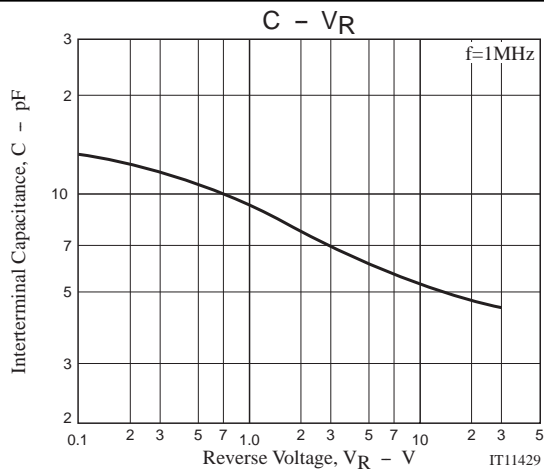


Electrical Connection



t_{rr} Test Circuit





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