

Schottky Barrier Diode

30 V, 0.5 A, Low I_R

SBE805

Features

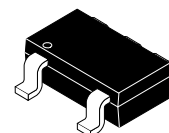
- Low Forward Voltage (V_F Max = 0.55 V)
- Fast Reverse Recovery Time (t_{rr} Max = 10 ns)
- Composite Type with 2 Diodes Contained in the CPH Package
Currently in Use, Improving the Mounting Efficiency Greatly
- The Chips Incorporated are Both Equivalent to the SB05-03C
- This Device is Pb-Free and Halide Free

Specifications

ABSOLUTE MAXIMUM RATINGS at $T_a = 25^\circ\text{C}$ (Value per element)

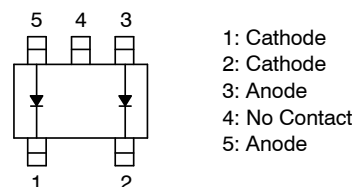
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	–	30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}	–	35	V
Average Output Current	I_O	–	500	mA
Surge Forward Current	I_{FSM}	50 Hz sine wave, 1 cycle	5	A
Junction Temperature	T_j	–	– 55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}	–	– 55 to +125	$^\circ\text{C}$

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.

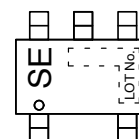


CPH5
CASE 318BC

ELECTRICAL CONNECTION



MARKING DIAGRAM



SE = Specific Device Code

ORDERING INFORMATION

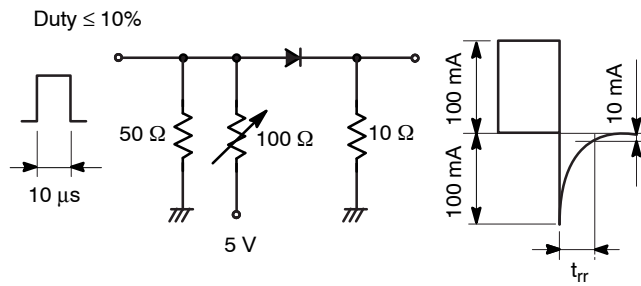
Device	Package	Shipping [†]
SBE805-TL-W	CPH-5 (Pb-Free and Halogen Free)	3000 / Tape & Reel

[†] For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, [BRD8011/D](#).

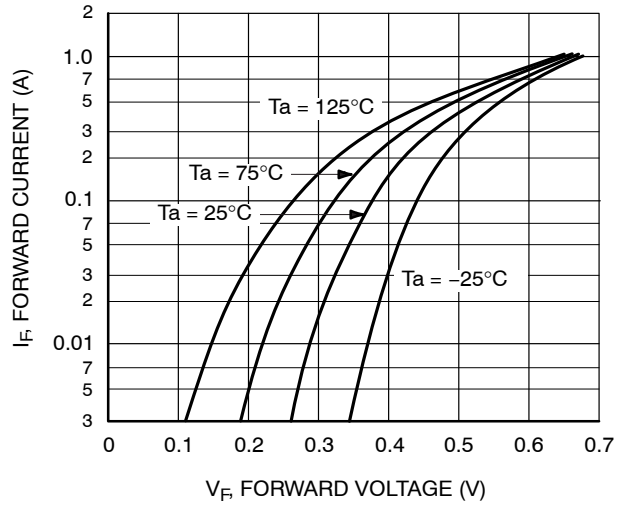
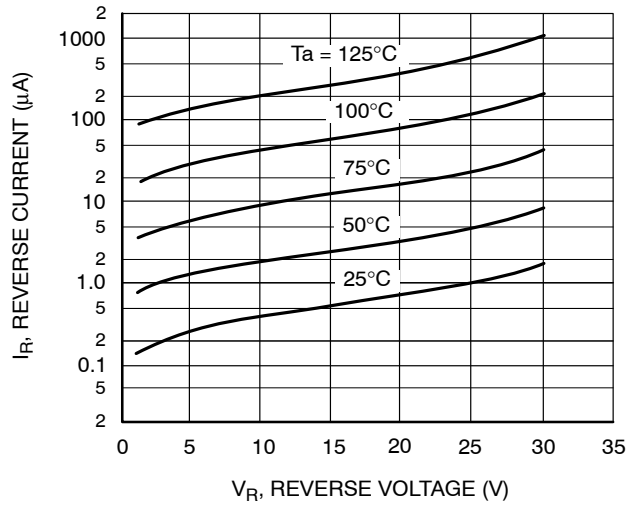
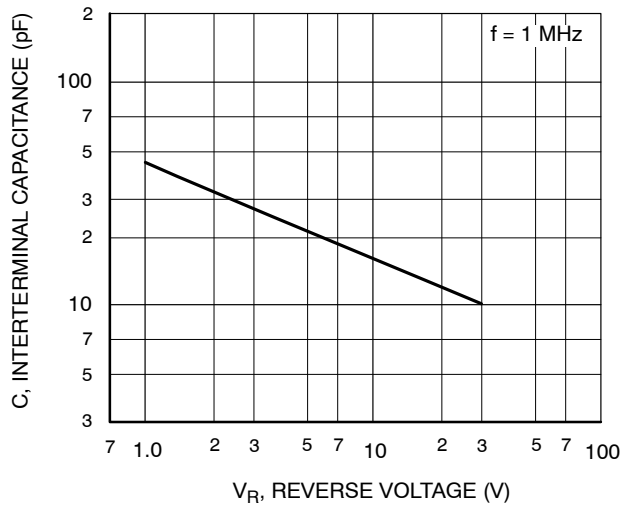
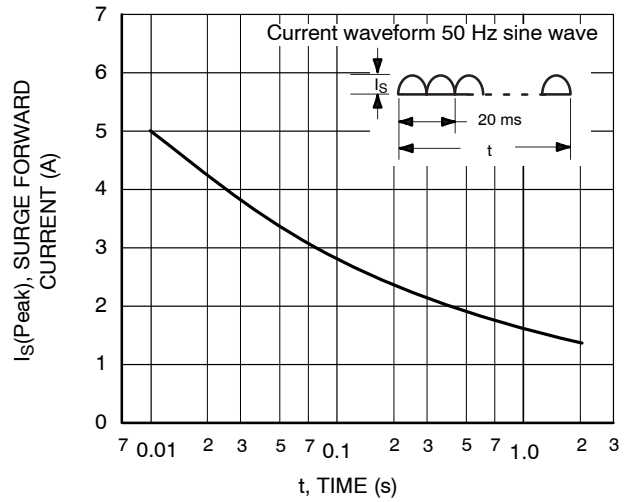
ELECTRICAL CHARACTERISTICS at $T_a = 25^\circ\text{C}$ (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			Min	Typ	Max	
Reverse Voltage	V_R	$I_R = 150\ \mu\text{A}$	30	–	–	V
Forward Voltage	V_F	$I_F = 500\ \text{mA}$	–	–	0.55	V
Reverse Current	I_R	$V_R = 15\ \text{V}$	–	–	30	μA
Interterminal Capacitance	C	$V_R = 10\ \text{V}$, $f = 1\ \text{MHz}$	–	16	–	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 100\ \text{mA}$, See specified Test Circuit.	–	–	10	ns
Thermal Resistance	$R_{th(j-a)}$		–	300	–	$^\circ\text{C/W}$

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.

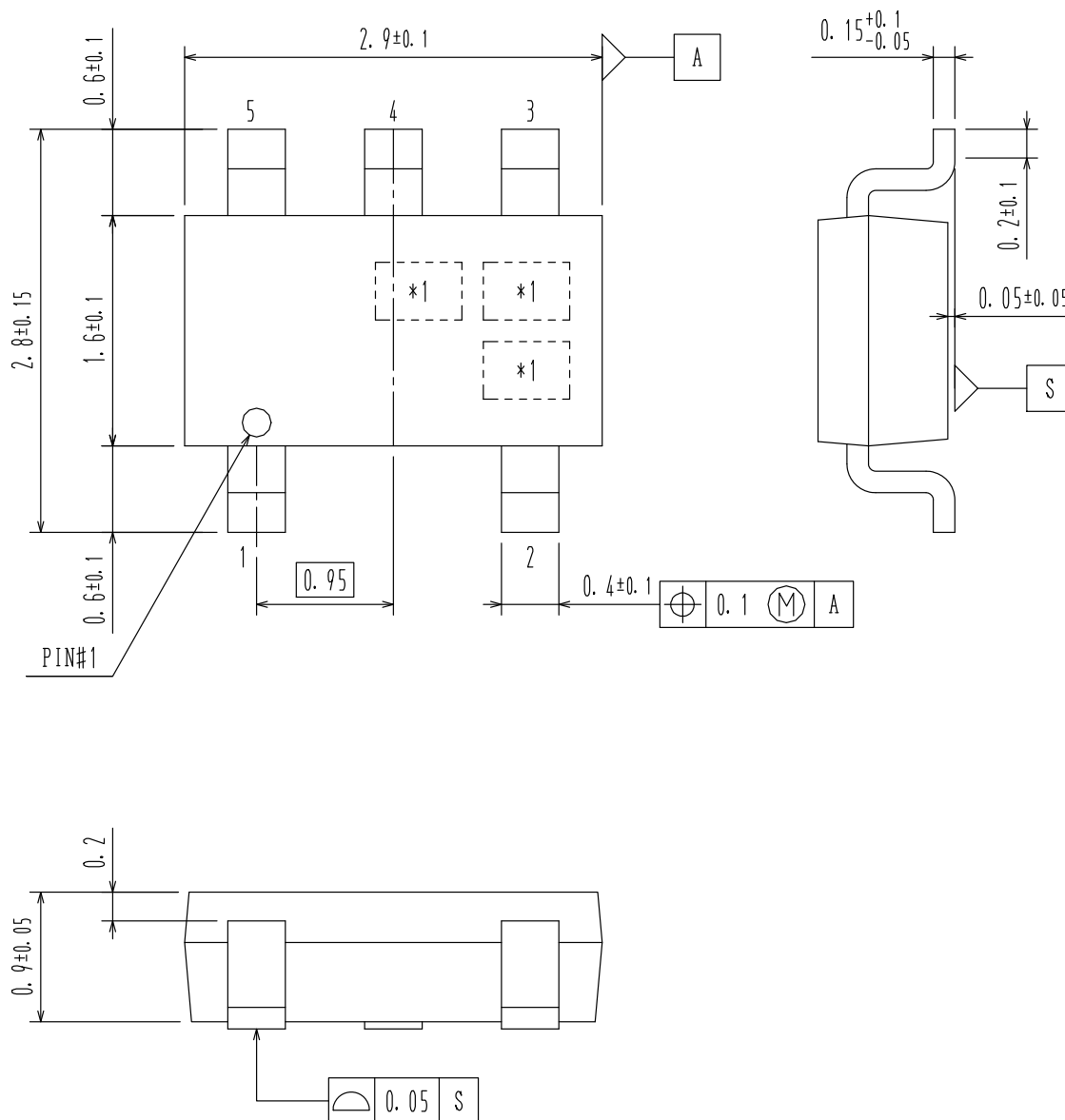
 t_{rr} Test Circuit

TYPICAL CHARACTERISTICS

Figure 1. $I_F - V_F$ Figure 2. $I_R - V_R$ Figure 3. $C - V_R$ Figure 4. $I_S - t$

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