

**30V, 500mA Rectifier**

An ON Semiconductor Company

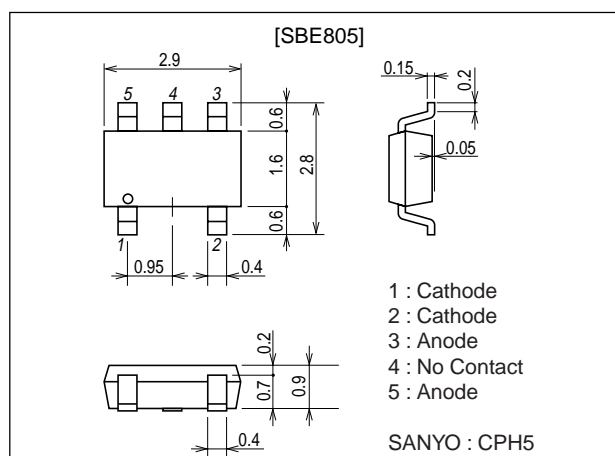
Features

- Low forward voltage (V_F max=0.55V).
- Fast reverse recovery time (t_{rr} max=10ns).
- 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.

Package Dimensions

unit : mm

1294

**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
Non-repetitive Peak Reverse Surge Voltage	V_{RSM}		35	V
Average Output Current	I_O		500	mA
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	5	A
Junction Temperature	T_j		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

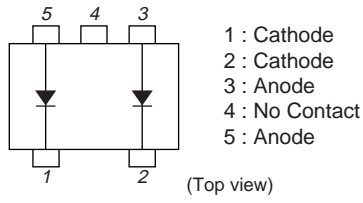
Electrical Characteristics at $T_a=25^\circ\text{C}$ (Value per element)

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		$^\circ\text{C} / \text{W}$

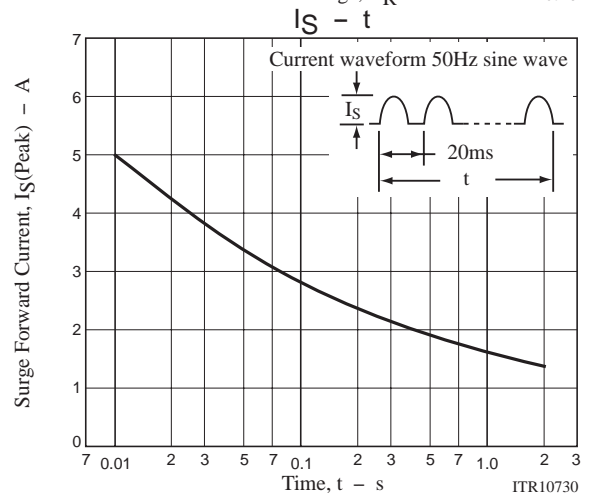
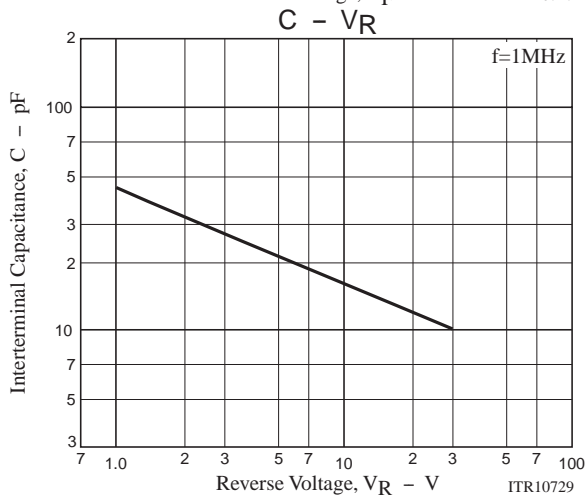
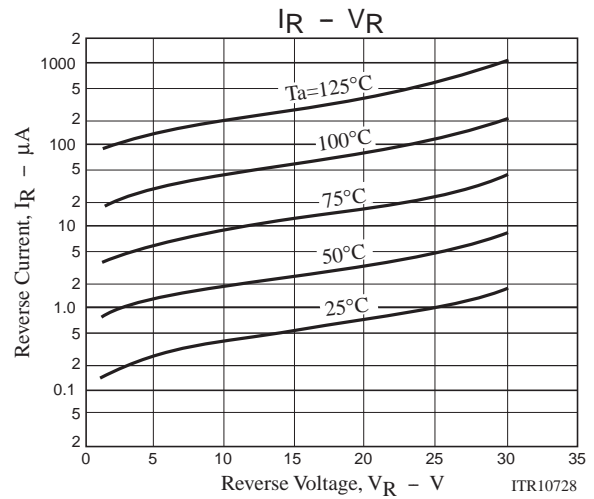
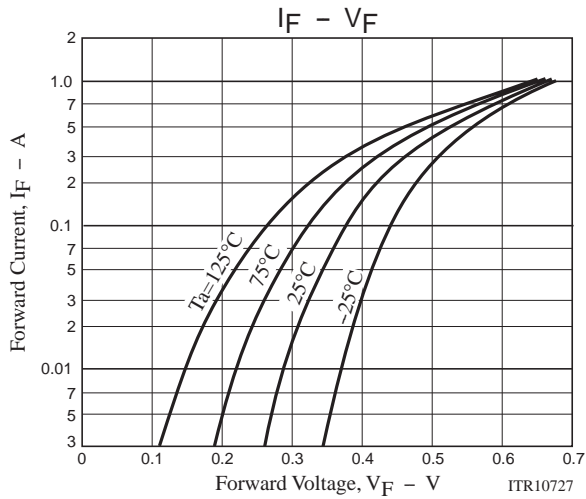
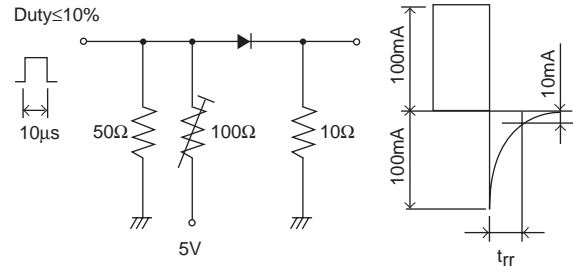
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Electrical Connection



t_{rr} Test Circuit



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