

**30V, 0.5A Rectifier****Applications**

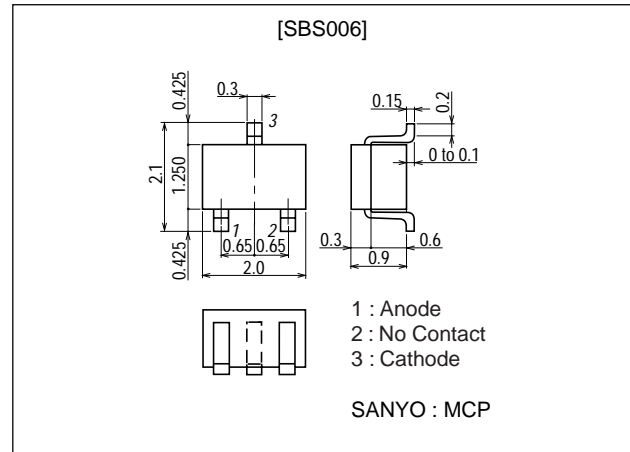
- High frequency rectification (switching regulators, converters and choppers).

Features

- Low forward voltage ($I_F=0.3A$, $V_F \text{ max}=0.4V$) ($I_F=0.5A$, $V_F \text{ max}=0.47V$).
- Ultrasmall-sized package, permitting SBS006-applied sets to be compact and slim.

Package Dimensions

unit : mm
1197A

**Specifications****Absolute Maximum Ratings** at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		30	V
Average Output Current	I_O		0.5	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T_j		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.5\text{mA}$	30			V
Forward Voltage	V_{F1}	$I_F=0.3A$		0.35	0.40	V
	V_{F2}	$I_F=0.5A$		0.42	0.47	V
Reverse Current	I_R	$V_R=10V$			200	μA
Interterminal Capacitance	C	$V_R=10V$, $f=1\text{MHz}$		20		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns

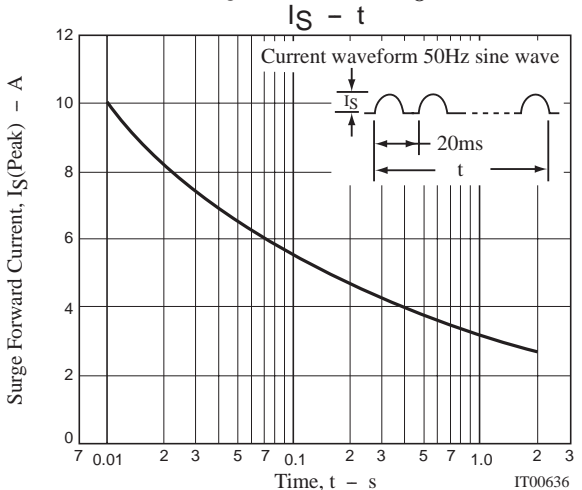
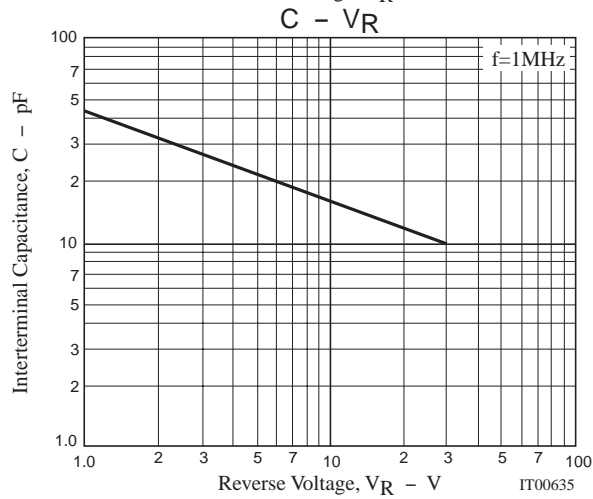
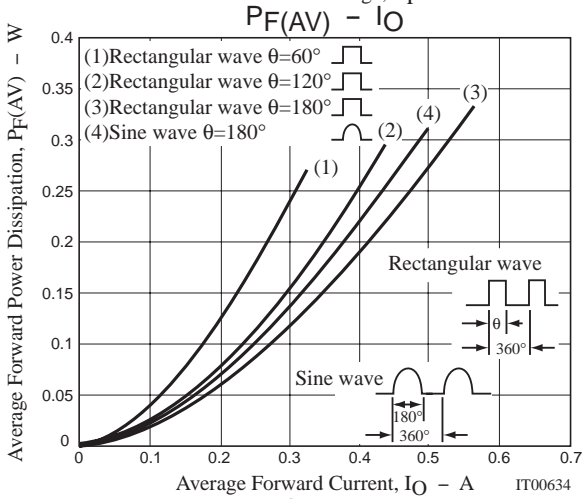
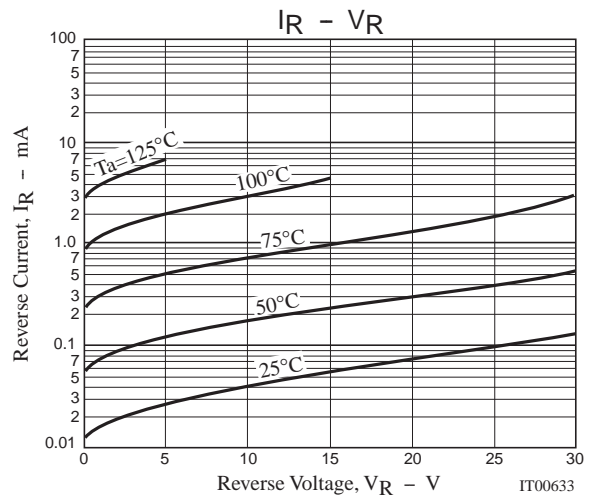
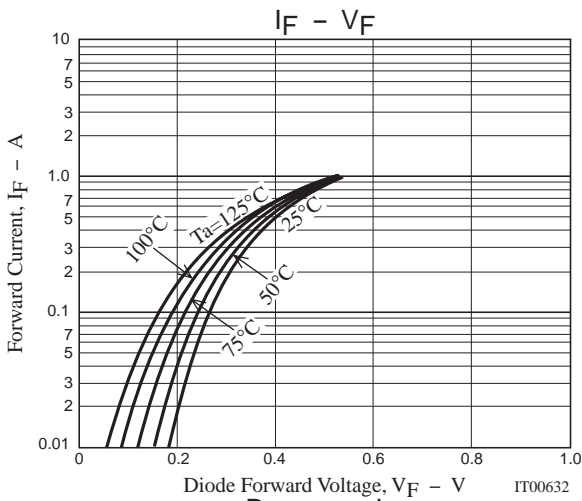
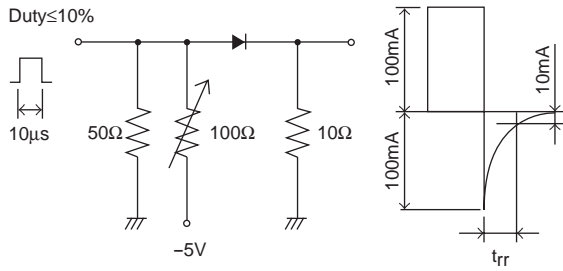
Marking : SA

Since this device is a low- V_F SBD, the I_R is large. It is inclined to break due to thermal runaway caused by reverse loss in case of severe conditions such as high temperature / voltage. Please make a safe design taking heat dissipation into consideration.

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trr Test Circuit



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