

# SBS005M



## 30V, 1A Rectifier

### Applications

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

### Features

- Low forward voltage ( $I_F=0.5A$ ,  $V_F \text{ max}=0.4V$ ) ( $I_F=1.0A$ ,  $V_F \text{ max}=0.47V$ ).
- Ultrasmall package permitting applied sets to be small and slim (Mounting height 0.85mm).

### Specifications

#### Absolute Maximum Ratings at $T_a=25^\circ C$

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	$I_O$		1	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	10	A
Junction Temperature	$T_j$		-55 to +125	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ C$

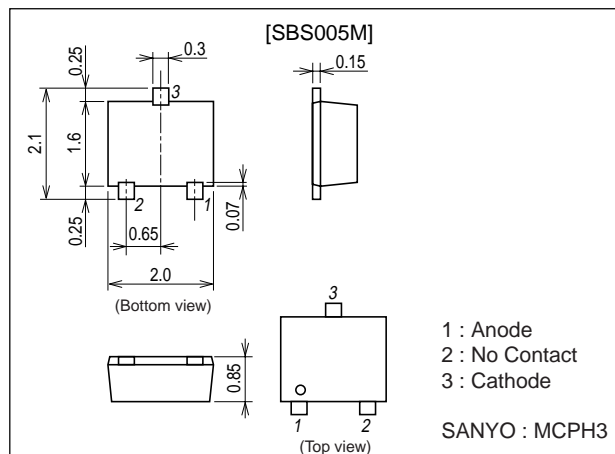
#### Electrical Characteristics at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=1mA$	30			V
Forward Voltage	$V_{F1}$	$I_F=0.5A$		0.35	0.40	V
	$V_{F2}$	$I_F=1A$		0.42	0.47	V
Reverse Current	$I_R$	$V_R=15V$			500	$\mu A$
Interterminal Capacitance	C	$V_R=10V, f=1MHz$		35		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100mA$ , See specified Test Circuit.			15	ns
Thermal Resistance	$R_{th(j-a)}$	Mounted on a ceramic board (600mm <sup>2</sup> ×0.8mm)		138		$^\circ C / W$

Marking : SC

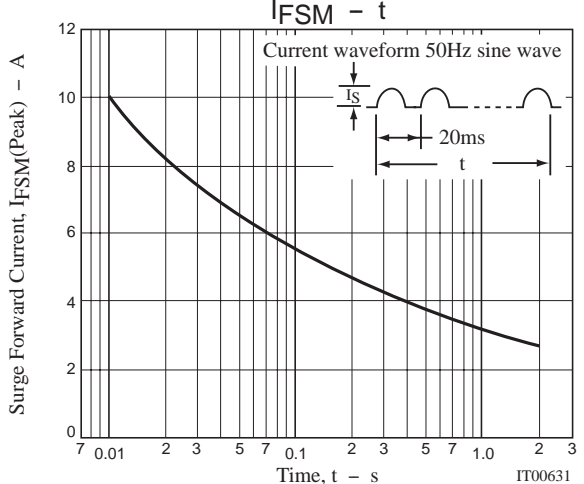
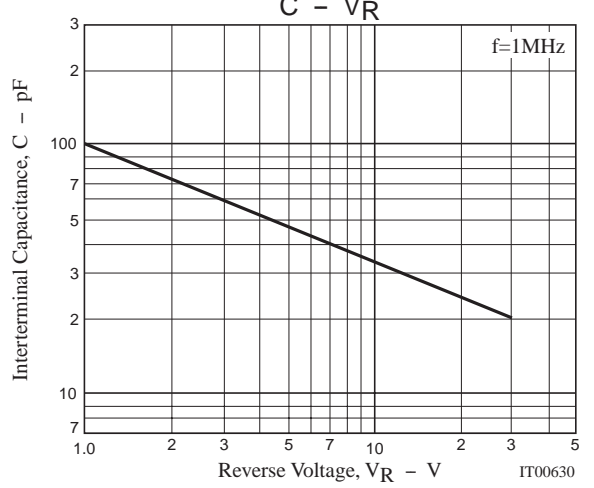
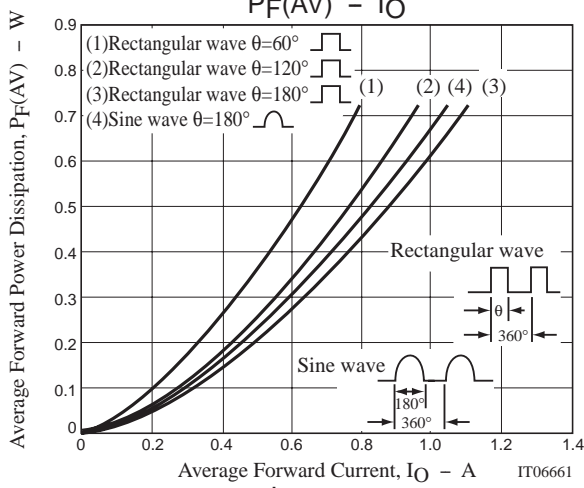
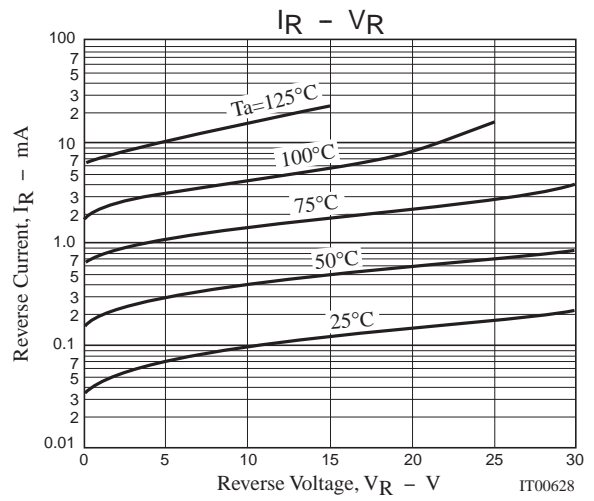
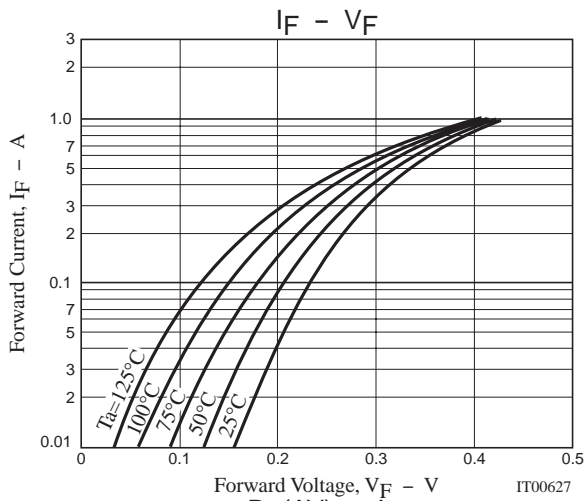
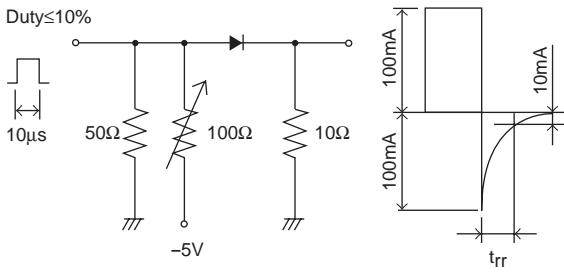
### Package Dimensions

unit : mm  
1305A



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**t<sub>rr</sub> Test Circuit**



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