



SANYO Semiconductors

## DATA SHEET

# SS0503EJ

 — Schottky Barrier Diode  
**30V, 500mA Rectifier**

## Applications

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

## Features

- Low switching noise.
- Low forward voltage ( $I_F=300\text{mA}$ ,  $V_F \text{ max}=0.4\text{V}$ ) ( $I_F=500\text{mA}$ ,  $V_F \text{ max}=0.45\text{V}$ ).
- Ultraminiature (1608 size) and thin (0.6mm) leadless package.

## 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	$V_{RSM}$		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 $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=500\mu\text{A}$	30			V
Forward Voltage	$V_{F1}$	$I_F=300\text{mA}$			0.4	V
	$V_{F2}$	$I_F=500\text{mA}$			0.45	V
Reverse Current	$I_R$	$V_R=15\text{V}$			360	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=10\text{mA}$ , See specified Test Circuit.			10	ns
Interterminal Capacitance	C	$V_R=10\text{V}$ , $f=1\text{MHz}$		16.5		pF
Thermal Resistance	$R_{th(j-a)}$	Mounted on a ceramic board (250mm <sup>2</sup> ×0.8mm)		200		$^\circ\text{C} / \text{W}$

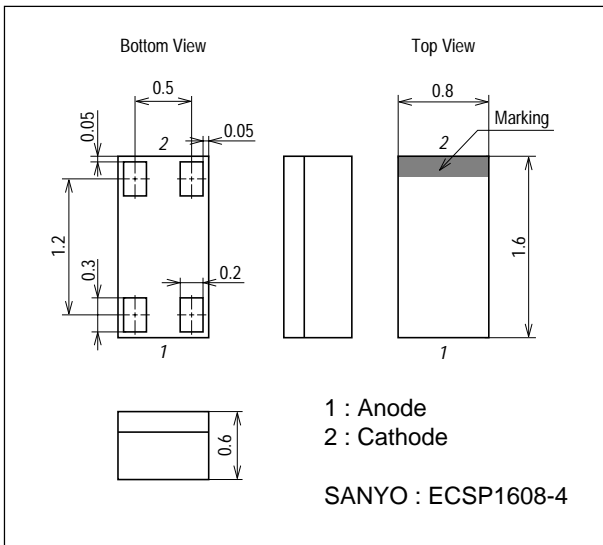
Marking : DE

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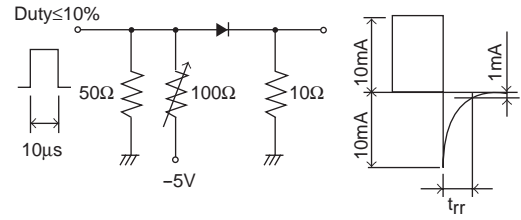
# SS0503EJ

## Package Dimensions

unit : mm  
1332



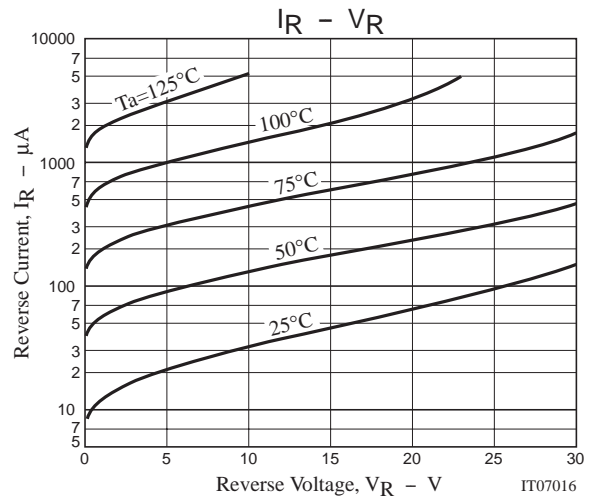
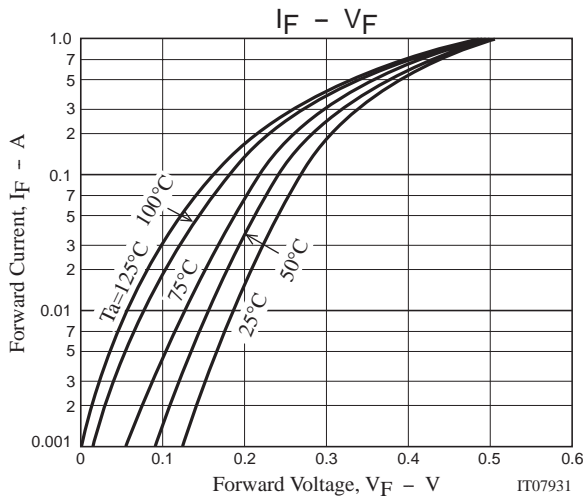
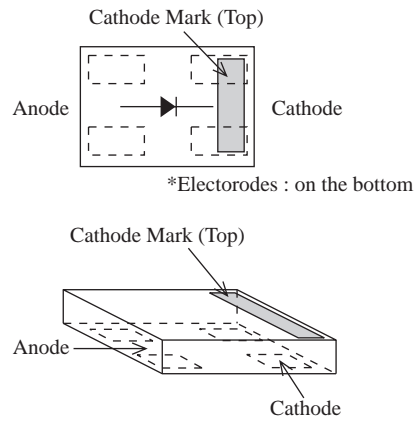
## $t_{rr}$ Test Circuit

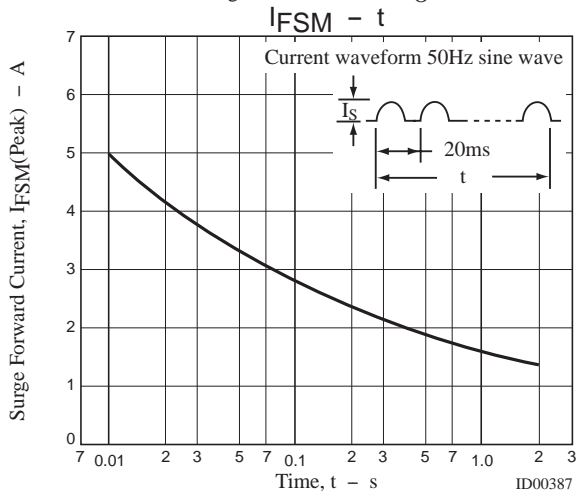
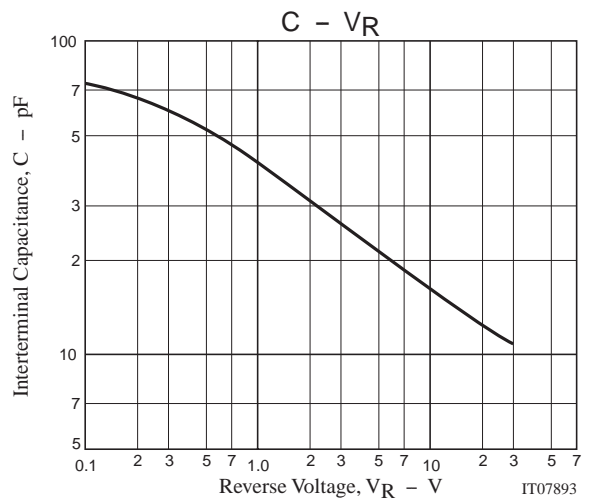
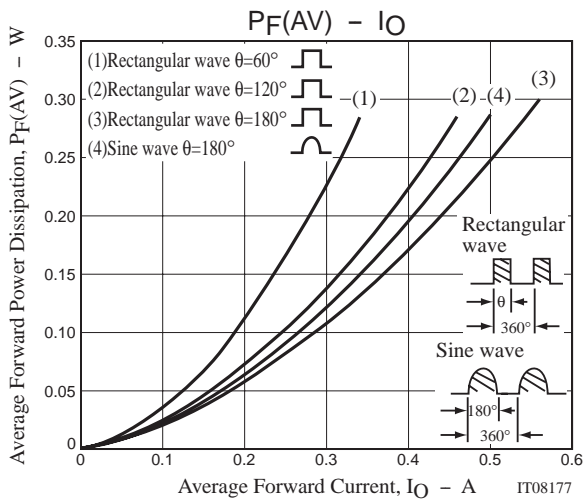


## Type No. Indication (Top view)



## Electrical Connection (Top view)





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