

## SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

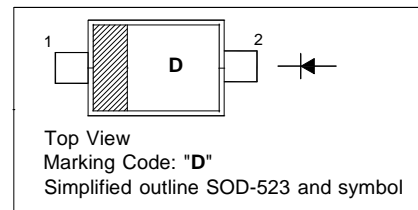
for high speed switching and detection applications

### Features

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



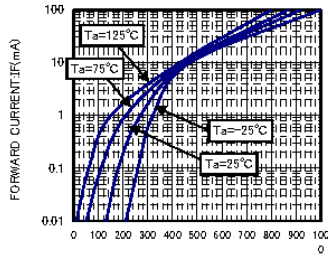
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	$V_{RM}$	40	V
Reverse Voltage	$V_R$	30	V
Mean Rectifying Current	$I_O$	30	mA
Peak Forward Surge Current (60 Hz, 1 Cycle)	$I_{FSM}$	200	mA
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 40 to + 125	$^\circ\text{C}$

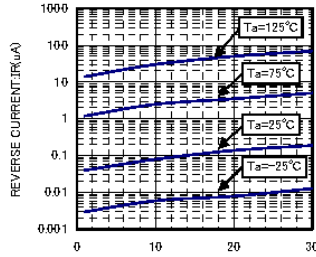
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$	$V_F$	-	0.37	V
Reverse Current at $V_R = 30\text{ V}$	$I_R$	-	0.5	$\mu\text{A}$
Capacitance Between Terminals at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	2	-	pF

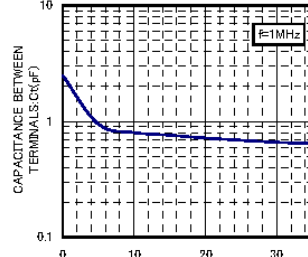
Note: ESD sensitive product handling required.



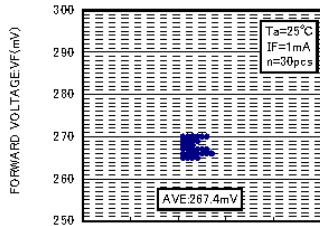
FORWARD VOLTAGE: VF (mV)  
VF-IF CHARACTERISTICS  
VF 分布



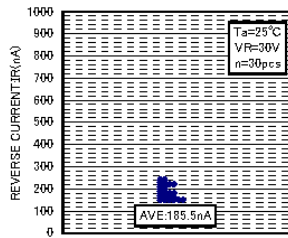
REVERSE VOLTAGE: VR (V)  
VR-IR CHARACTERISTICS



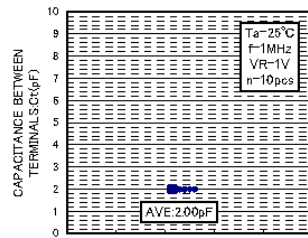
REVERSE VOLTAGE: VR (V)  
VR-Ct CHARACTERISTICS



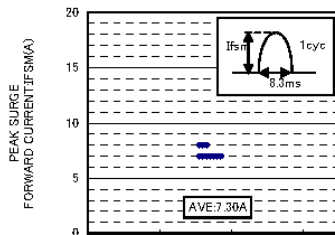
VF DISPERSION MAP



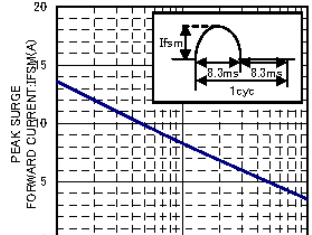
IR DISPERSION MAP



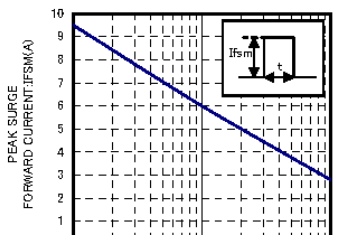
Ct DISPERSION MAP



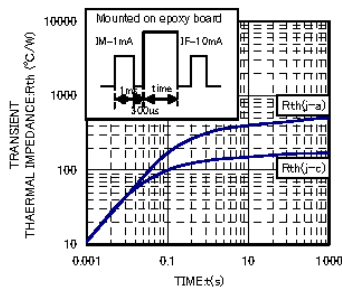
IFSM DISPERSION MAP



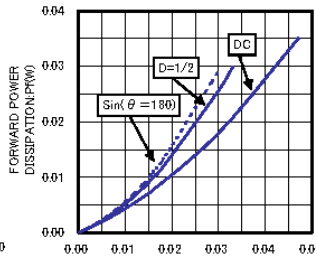
NUMBER OF CYCLES  
IFSM-CYCLE CHARACTERISTICS



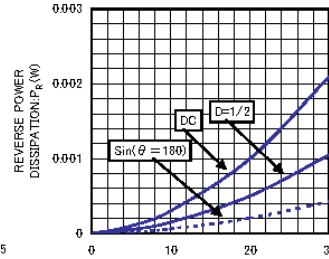
IFSM-t CHARACTERISTICS



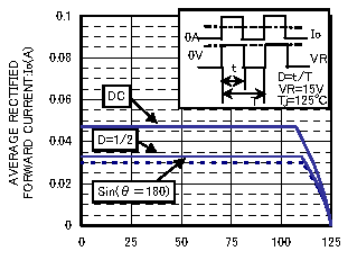
Rth-t CHARACTERISTICS



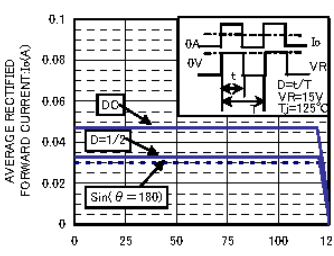
AVERAGE RECTIFIED FORWARD CURRENT  $I_o$ - $P_p$  CHARACTERISTICS



REVERSE VOLTAGE: VR (V)  
VR- $P_p$  CHARACTERISTICS



AMBIENT TEMPERATURE:  $T_a$  (°C)  
Derating Curve ( $I_o$ - $T_a$ )



CASE TEMPERATURE:  $T_c$  (°C)  
Derating Curve ( $I_o$ - $T_c$ )



**CHINA BASE**  
INTERNATIONAL

**SOD-523**

**RB751S-40**

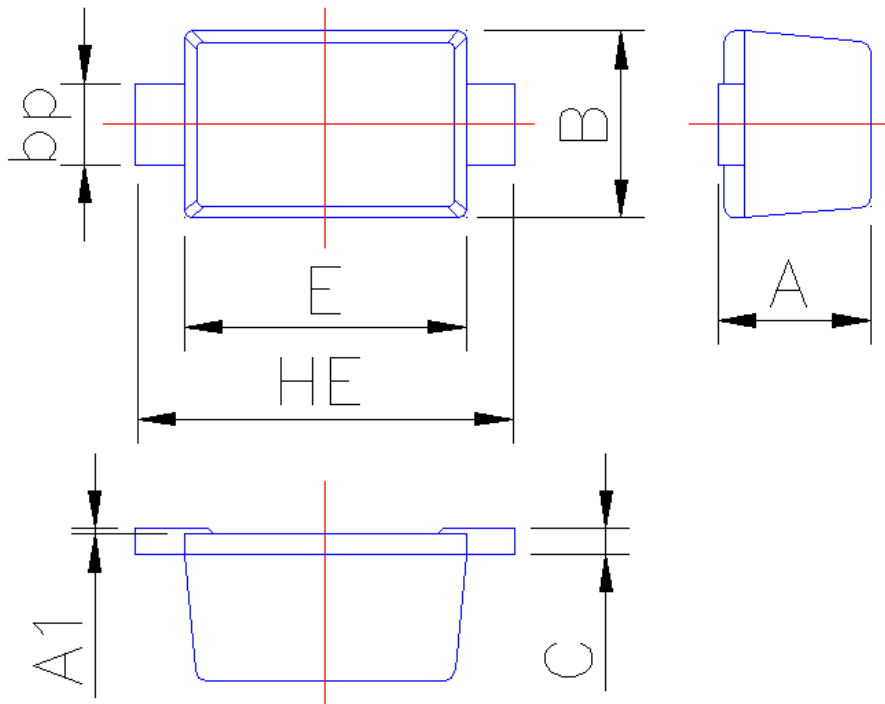


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**PACKAGE OUTLINE**

SOD-523

Plastic surface mounted package; 2 leads



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
A1	0	0.05
B	0.75	0.85
bp	0.25	0.40
C	0.09	0.15
E	1.15	1.25
HE	1.50	1.70