

SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

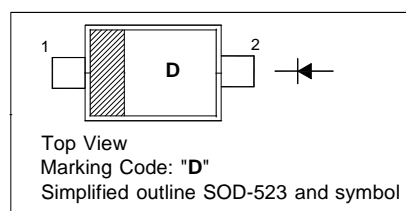
for high speed switching and detection applications

Features

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



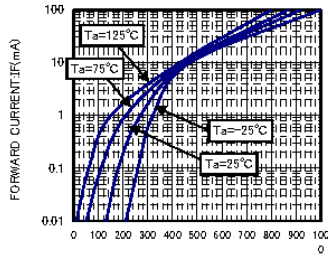
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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	$^\circ\text{C}$

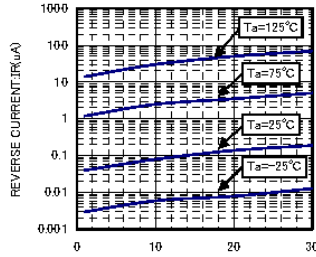
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

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	μA
Capacitance Between Terminals at $V_R = 1\text{ V}$, $f = 1\text{ MHz}$	C_T	2	-	pF

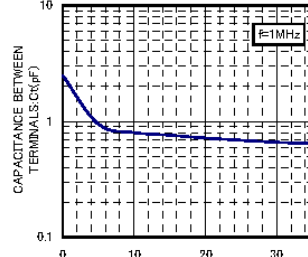
Note: ESD sensitive product handling required.



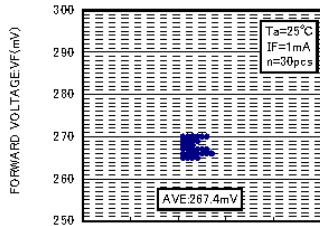
FORWARD VOLTAGE: VF (mV)
VF-IF CHARACTERISTICS
VF 分布



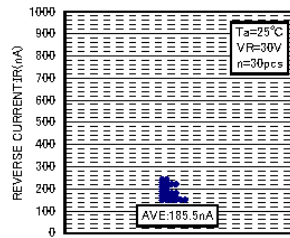
REVERSE VOLTAGE: VR (V)
VR-IR CHARACTERISTICS



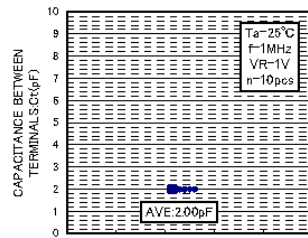
REVERSE VOLTAGE: VR (V)
VR-Ct CHARACTERISTICS



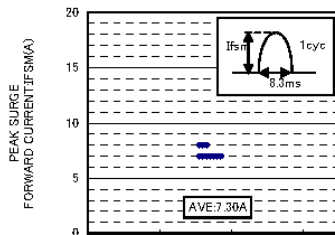
VF DISPERSION MAP



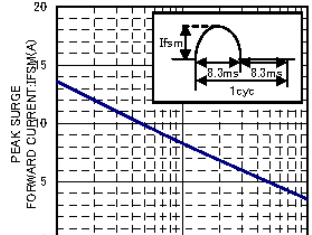
IR DISPERSION MAP



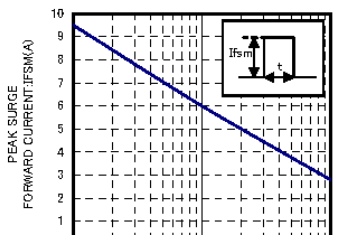
Ct DISPERSION MAP



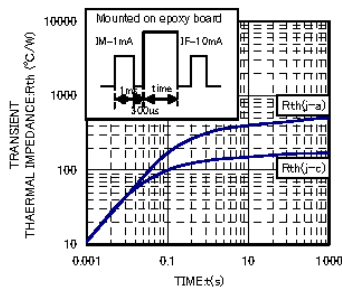
IFSM DISPERSION MAP



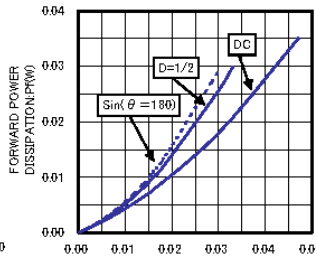
NUMBER OF CYCLES
IFSM-CYCLE CHARACTERISTICS



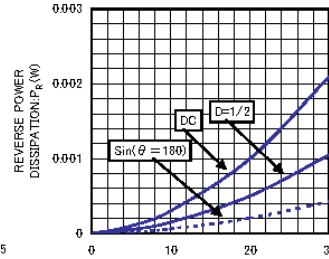
IFSM-t CHARACTERISTICS



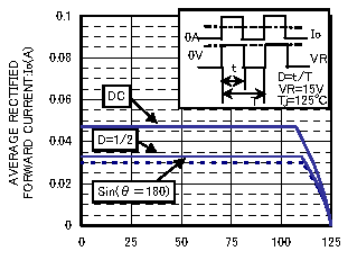
Rth-t CHARACTERISTICS



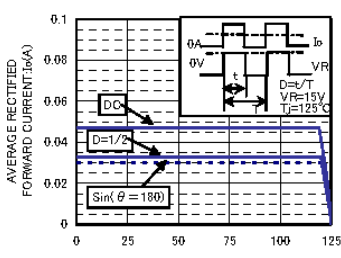
AVERAGE RECTIFIED FORWARD CURRENT I_o (A)
 I_o - P_f CHARACTERISTICS



REVERSE VOLTAGE: VR (V)
VR- P_r 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

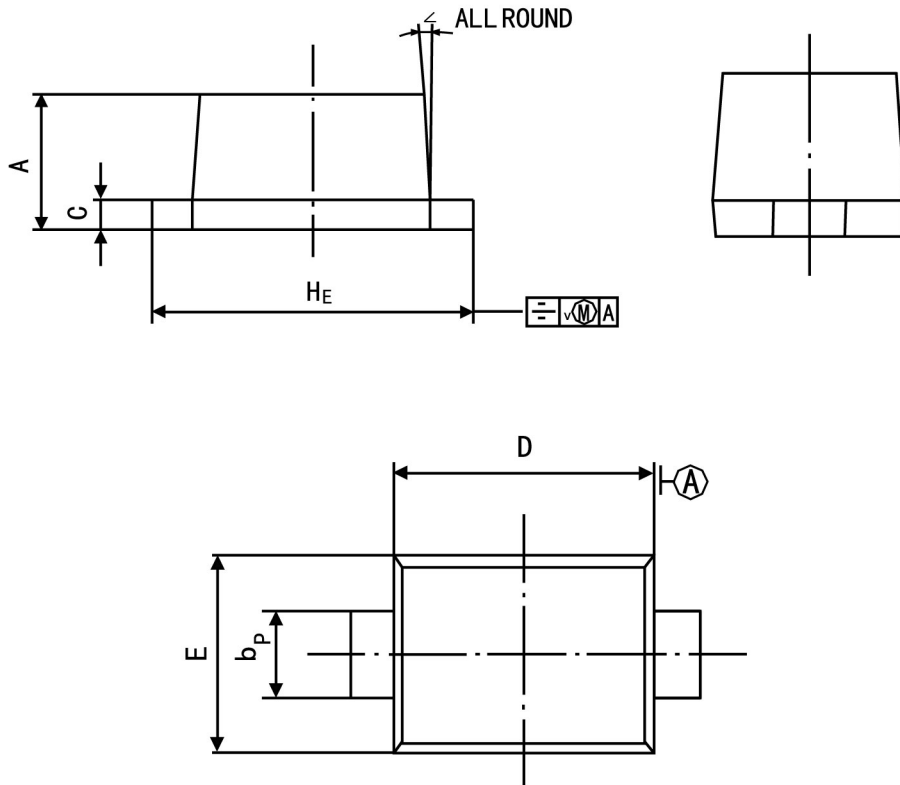


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PACKAGE OUTLINE

SOD-523

Plastic surface mounted package; 2 leads



Symbol	Dimension in Millimeters	
	Min	Max
A	0.60	0.70
bp	0.30	0.40
C	0.100	0.14
D	1.15	1.25
E	0.75	0.85
HE	1.50	1.70
V	—	0.10
∠	—	5°