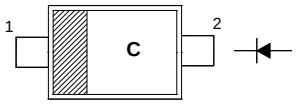
SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

for low current rectification and high speed
switching applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: "**C**"
Simplified outline SOD-523 and symbol

Features

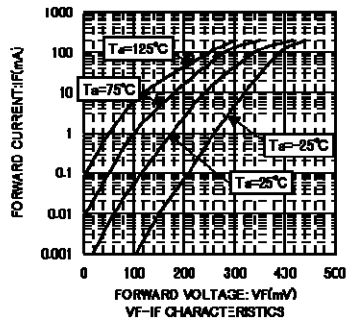
• Extremely small surface mounting type

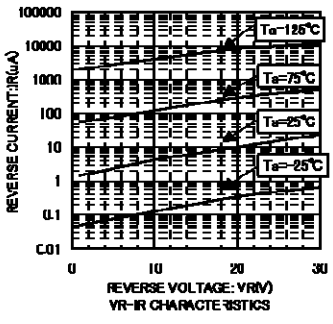
Absolute Maximum Ratings (T_a = 25 °C)

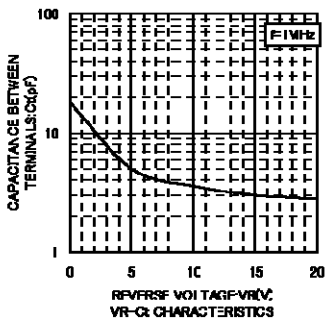
Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Mean Rectifying Current	I_O	200	mA
Peak Forward Surge Current (60Hz for Cyc.)	I_{FSM}	1	A
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	- 40 to + 125	°C

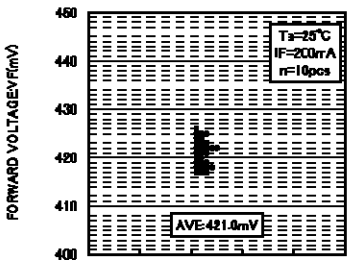
Characteristics at T_a = 25 °C

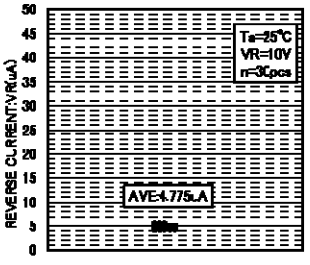
Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 200 mA	V_F	0.5	V
Reverse Current at V_R = 10 V	I_R	30	μA

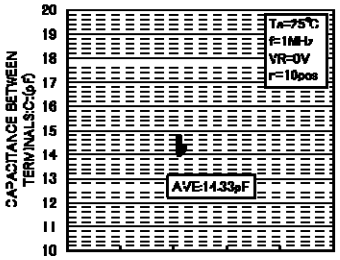

Ta=125℃
Ta=75℃
Ta=25℃
Ta=-25℃
FORWARD CURRENT:IF(mA)
FORWARD VOLTAGE: VF(mV)
VF-IF CHARACTERISTICS

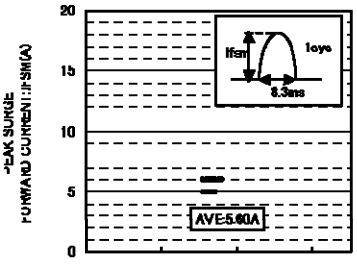

Ta=125℃
Ta=75℃
Ta=25℃
Ta=-25℃
REVERSE CURRENT:IR(uA)
REVERSE VOLTAGE: VR(V)
VR-IR CHARACTERISTICS

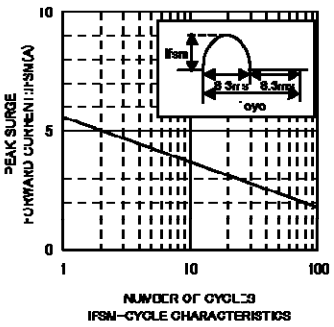

F=1MHz
CAPACITANCE BETWEEN TERMINALS:Ct(pF)
VR-Ct CHARACTERISTICS

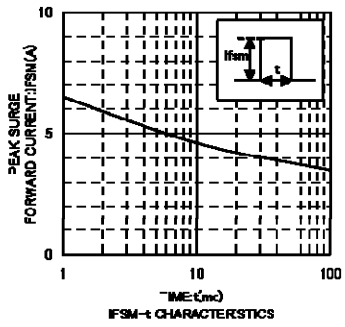

Ta=25℃
IF=200mA
n=10pcs
AVE:421.0mV
FORWARD VOLTAGE:VF(mV)
VF DISPERSION MAP

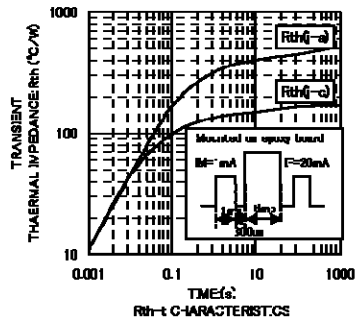

Ta=25℃
VR=10V
n=30pcs
AVE:4.775uA
REVERSE CURRENT:IR(uA)
IR DISPERSION MAP

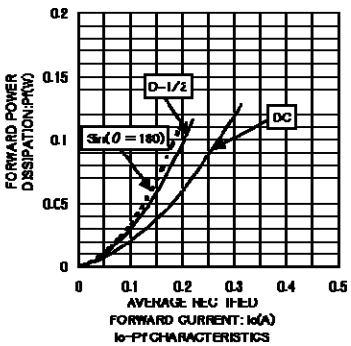

Ta=25℃
f=1MHz
VR=0V
n=10pcs
AVE:14.33pF
CAPACITANCE BETWEEN TERMINALS:Ct(pF)
Ct DISPERSION MAP

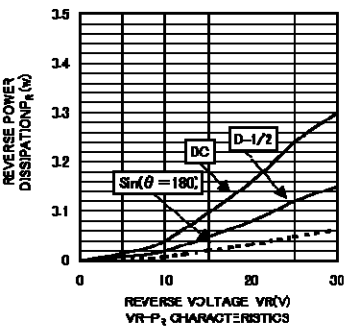

Ifsm
1cyc
8.3ms
AVE:5.60A
PEAK SURGE FORWARD CURRENT:IFSM(A)
IFSM DISPERSION MAP


Ifsm
8.3ms
1cyc
PEAK SURGE FORWARD CURRENT:IFSM(A)
NUMBER OF CYCLES
IFSM-CYCLE CHARACTERISTICS


Ifsm
t
PEAK SURGE FORWARD CURRENT:IFSM(A)
IFSM-t CHARACTERISTICS

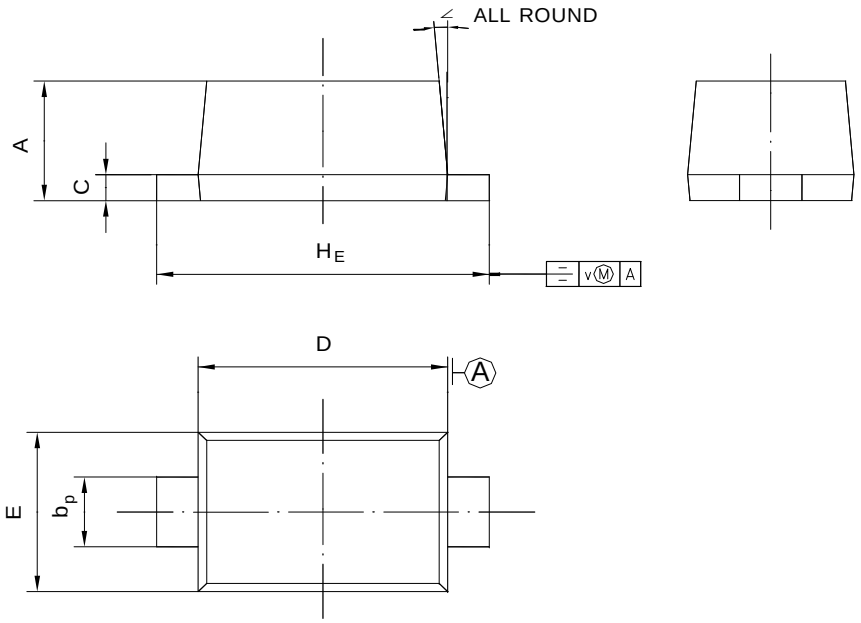

Rth(j-a)
Rth(j-c)
Mounted on epoxy board
IM=10mA
IF=20mA
300us
TRANSIENT THERMAL IMPEDANCE Rth (℃/W)
TIME(s)
Rth-t CHARACTERISTICS


D=1/2
Sin(θ=180)
DC
FORWARD POWER DISSIPATION:PF(W)
AVERAGE RECTIFIED FORWARD CURRENT: Io(A)
Io-PF CHARACTERISTICS


DC
D=1/2
Sin(θ=180)
REVERSE POWER DISSIPATION
REVERSE VOLTAGE VR(V)
VR-PR CHARACTERISTICS

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-523**



UNIT	A	b_p	C	D	E	H_E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°