

SCHOTTKY BARRIER DIODE

●Applications

Low current rectification and high speed switching

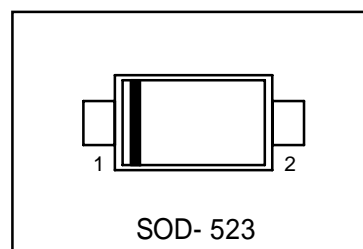
●Features

Extremely small surface mounting type. (SC- 79/SOD523)

Extremely Fast Switching Speed

Extremely Low Forward Voltage 0.6 V (max) @ $I_F = 200 \text{ mA}$

Low Reverse Current



●Construction

Silicon epitaxial planar



- We declare that the material of product compliance with RoHS requirements.

DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
FDR520E	5J	3000/Tape&Reel

MAXIMUM RATINGS $(T_A = 25^\circ\text{C})$

Parameter	Symbol	Limits	Unit
DC reverse voltage	V_R	30	V
Mean rectifying current	I_o	200	mA
Peak forward surge current	I_{FSM}	1	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	- 40~ +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS $(T_A = 25^\circ\text{C})$

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.60	V	$I_F=200\text{mA}$
Reverse current	I_R	-	-	1.0	μA	$V_R=10\text{V}$

Electrical characteristic curves(Ta=25°C)

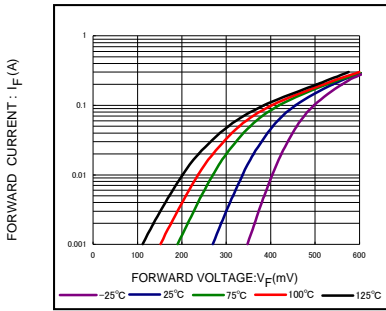


Fig. 1 Forward characteristics

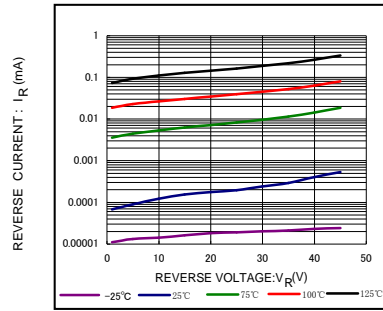


Fig. 2 Reverse characteristics

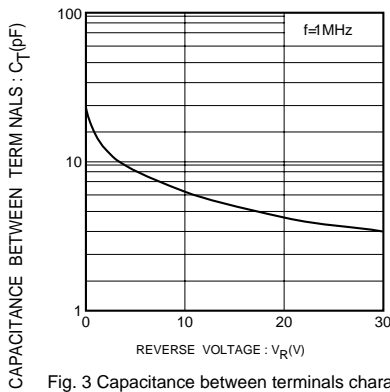
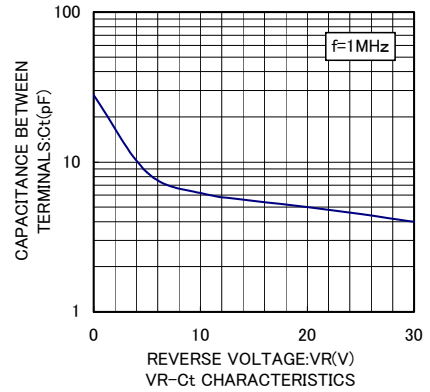


Fig. 3 Capacitance between terminals characteristics

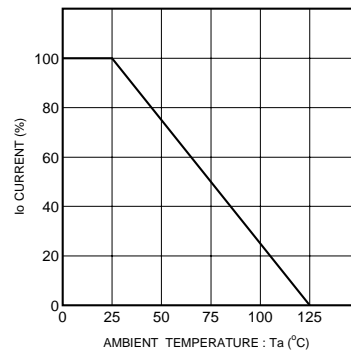
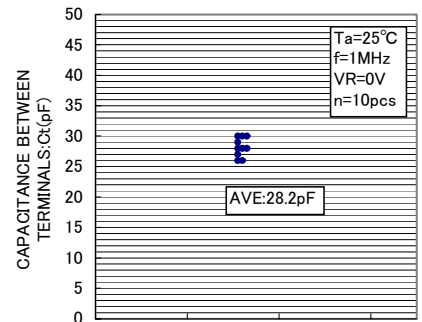
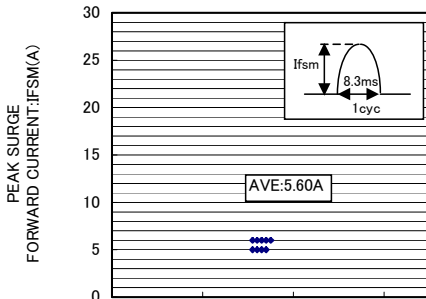


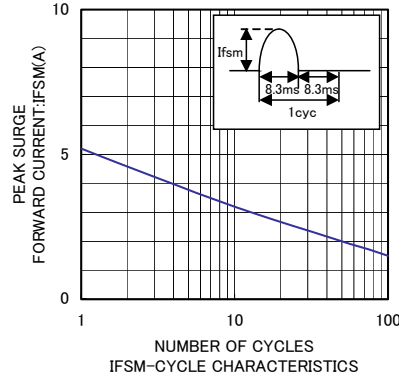
Fig. 4. Derating curve
(mounting on glass epoxy PCBs)



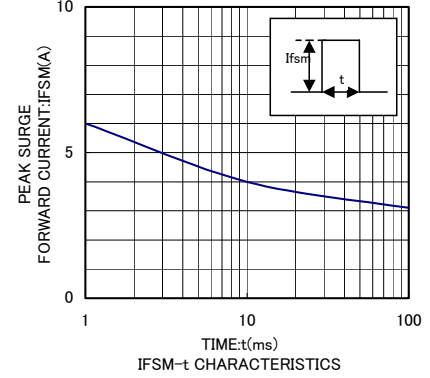
Ct DISPERSION MAP



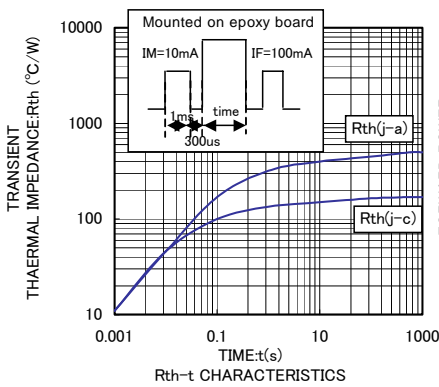
IFSM DISERSION MAP



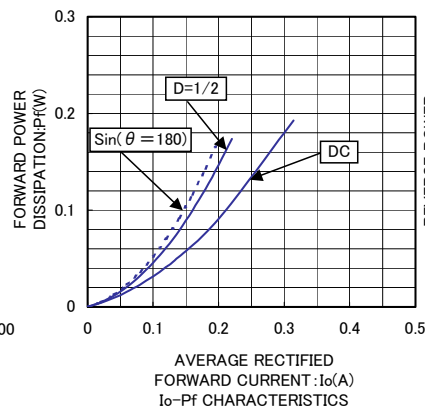
IFSM-CYCLE CHARACTERISTICS



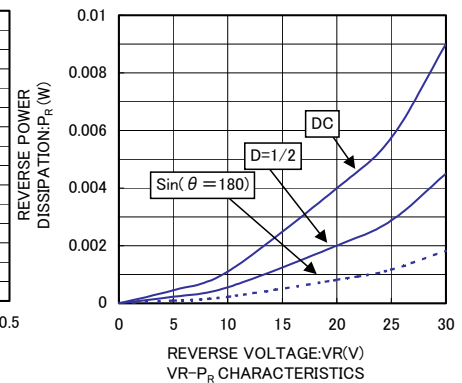
IFSM-t CHARACTERISTICS



Rth-t CHARACTERISTICS

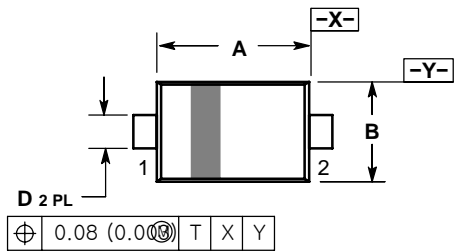


Io-Pf CHARACTERISTICS



VR-P_r CHARACTERISTICS

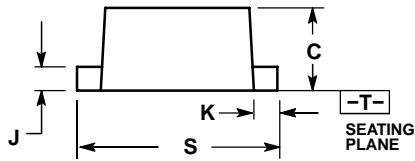
SC-79/SOD-523



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLING DIMENSION: MILL METER.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067



SOLDERING FOOTPRINT*

