

SCHOTTKY BARRIER DIODE

Applications

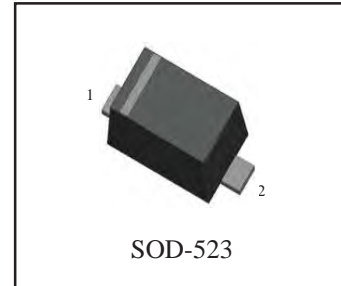
- Low current rectification and high speed switching

Features

- Extremely small surface mounting type. (SOD-523)
- High reliability
- Low I_R

Construction

- Silicon epitaxial planar
- We declare that the material of product compliance with RoHS requirements and Halogen Free.



Ordering Information

Device	Marking	Shipping
FDR520E-40	D	3000/Tape&Reel

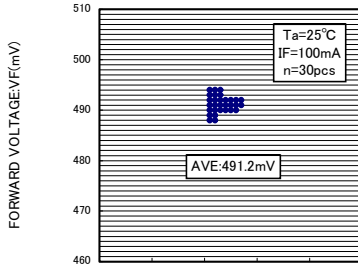
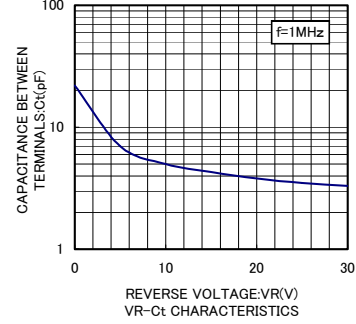
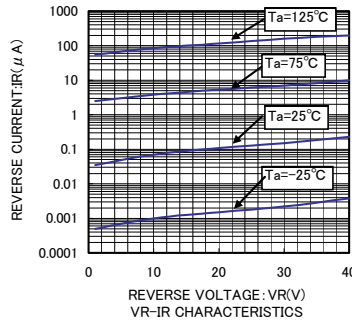
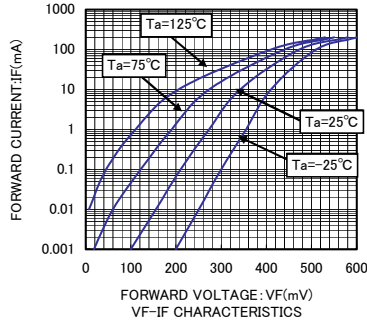
MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Reverse voltage(repetitive peak)	V_R	40	V
DC reverse voltage	V_R	40	V
Average rectified forward 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	$^\circ\text{C}$

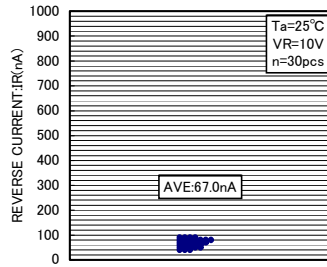
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Parameter	Symbol	Min.	Max.	Unit	Conditions
Forward voltage	V_F	-	0.39	V	$I_F = 10\text{mA}$
Forward voltage	V_F	-	0.55	V	$I_F = 100\text{mA}$
Reverse current	I_R	-	1	μA	$V_R = 10\text{V}$
Reverse current	I_R	-	10	μA	$V_R = 40\text{V}$

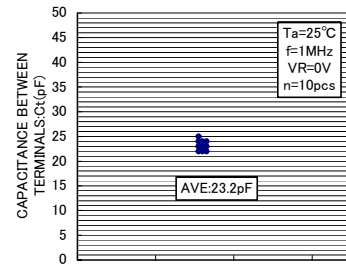
Electrical characteristic curves



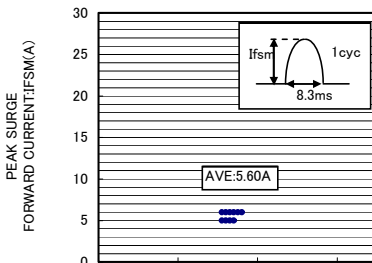
VF DISPERSION MAP



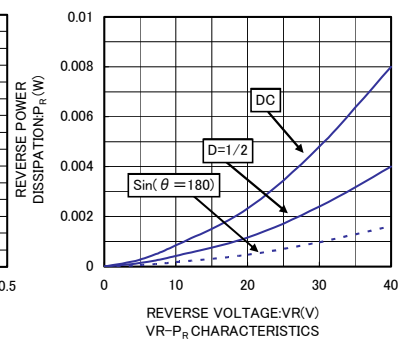
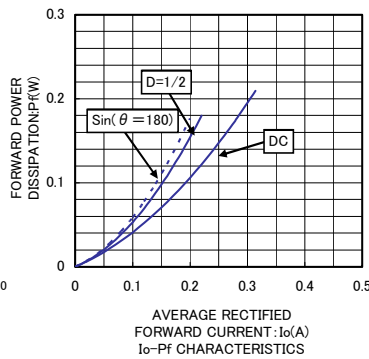
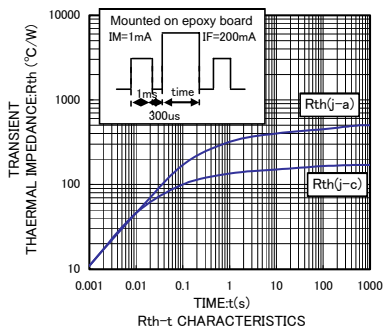
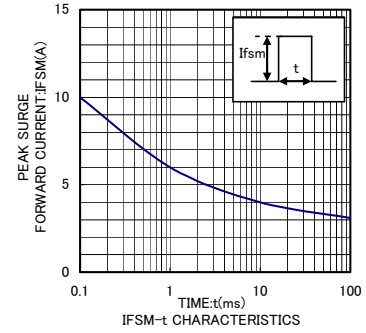
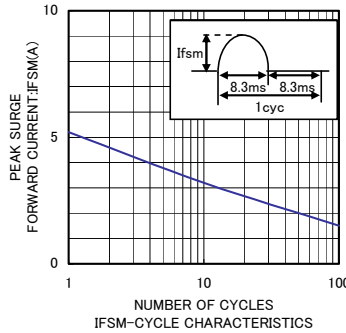
IR DISPERSION MAP



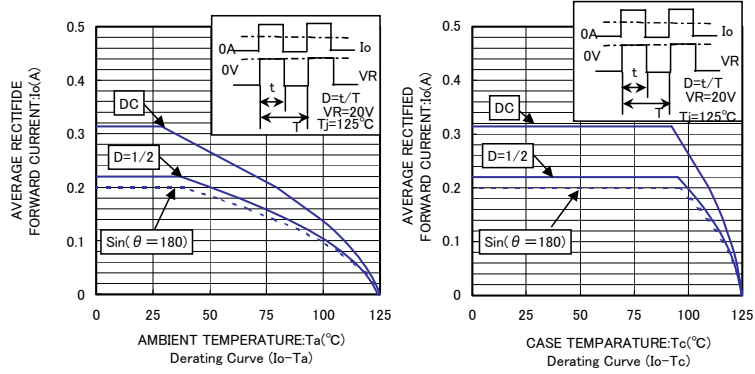
C_t DISPERSION MAP



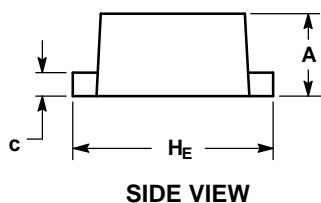
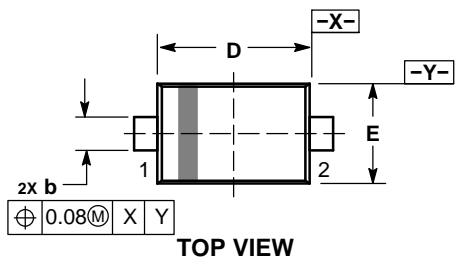
IFSM DISPERSION MAP



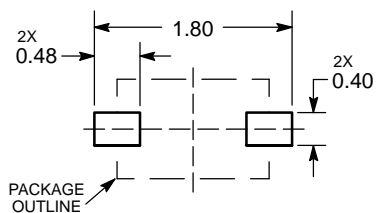
- Electrical characteristic curves (continued)



SOD-523



RECOMMENDED SOLDERING FOOTPRINT



NOTES:

1. CONTROLLING DIMENSION: MILL METERS.
2. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH.

BASE MATERIAL:

TRUSIONS, OR GATE BURRS.

DIM	MILLIMETERS		
	MIN	NOM	MAX
A	0.50	0.60	0.70
b	0.25	0.30	0.35
c	0.07	0.14	0.20
D	1.10	1.20	1.30
E	0.70	0.80	0.90
H _E	1.50	1.60	1.70
L	0.30 REF		
L2	0.15	0.20	0.25