

Schottky barrier diode

●Applications

- 1) Low-power rectification
- 2) For switching power supply

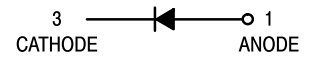
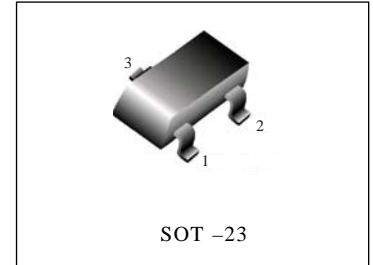
●Features

- 1) Small mold type. (SOT-23)
- 2) Ultra low V_F . ($V_F=0.40V$ Typ. at 1A)
- 3) $I_F=1.0A$ guaranteed despite the size.

●Construction


Silicon epitaxial planar

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



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	25	V
DC reverse voltage	V_R	20	V
DC forward current	I_F	1.0	A
Peak forward surge current	I_{FSM}	3	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-40 ~ +125	°C

□60Hz for 1 

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	—	—	0.45	V	$I_F=1.0A$
Reverse current	I_R	—	—	200	μA	$V_R=20V$

Note) ESD sensitive product handling required.

●Device marking and ordering information

Device	Marking	Shipping
FDR491	D2E	3000/Tape&Reel

Electrical characteristic curves (Ta = 25°C)

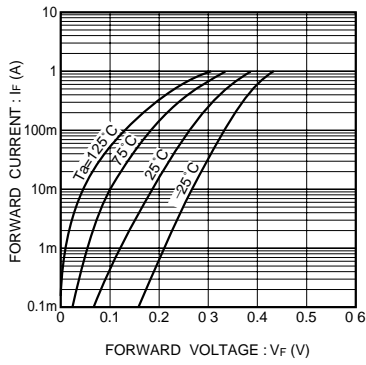


Fig.1 Forward characteristics

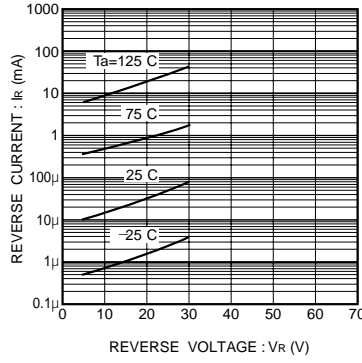


Fig.2 Reverse characteristics

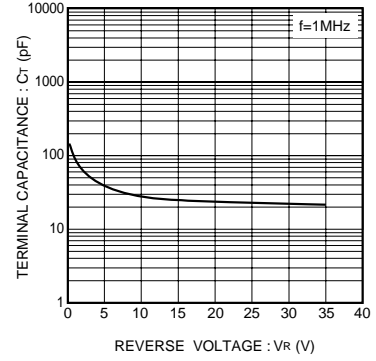


Fig.3 Capacitance between terminals characteristics

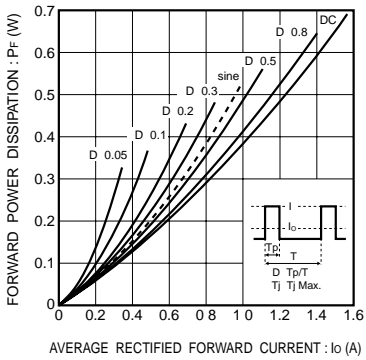


Fig.4 Forward power dissipation characteristics

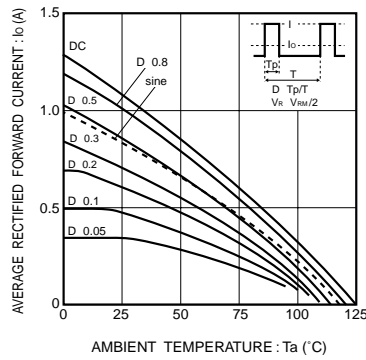
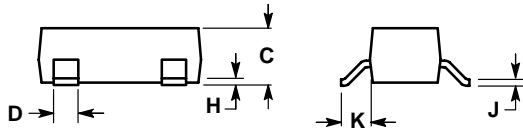
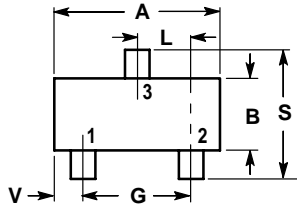


Fig.5 Derating curve (Io - Ta)

SOT-23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

