HRL0103C

Silicon Schottky Barrier Diode for Rectifying

REJ03G0367-0200
Rev.2.00
Mar 05, 2007

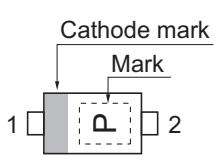
Features

- Low reverse voltage drop and suitable for high efficiency reverse current.
- Lineup of environmental friendly Halogen free type (HRL0103C-N)
- Extremely small Flat Lead Package (EFP) is suitable for surface mount design.

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
HRL0103C	P	EFP	PXSF0002ZA-A
HRL0103C-N (Halogen-free type)			

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM} *1	30	V
Reverse voltage	V_R	30	V
Average rectified current	I_O *1	100	mA
Peak forward surge current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM} *2	1	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	−55 to +125	°C

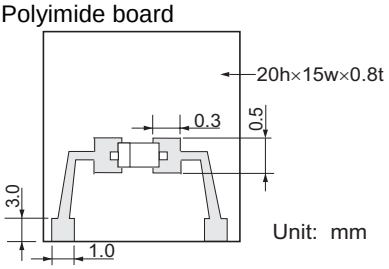
Notes: 1. See from Fig.3 to Fig.5.
2. 10 ms sine wave 1 pulse.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.40	V	I_F = 10 mA
	V_{F2}	—	—	0.60	V	I_F = 100 mA
Reverse current	I_{R1}	—	—	0.1	μA	V_R = 5 V
	I_{R2}	—	—	0.2		V_R = 10 V
Capacitance	C	—	—	8.0	pF	V_R = 0.5 V, f = 1 MHz
Thermal resistance	Rth(j-a)	—	800	—	°C/W	Polyimide board *1

Notes: 1. Polyimide board



2. For EFP package, the material of lead is exposed for cutting plane. There for, soldering nature of lead tip part is considered as unquestioned. Please kindly consider soldering nature.

Main Characteristic

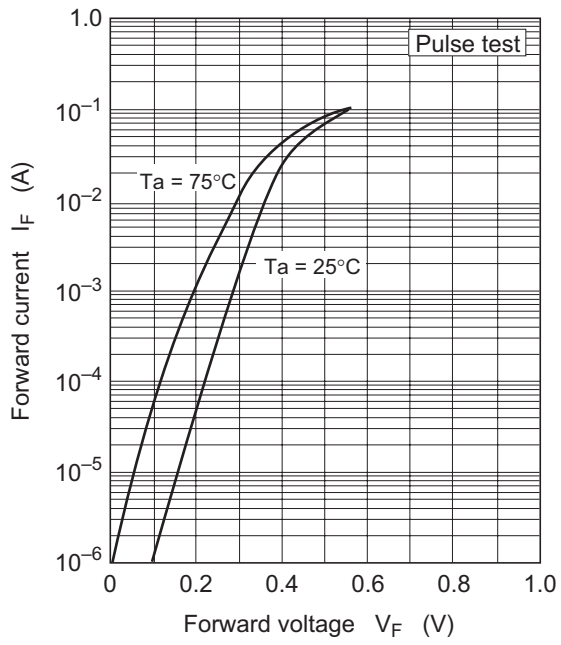


Fig.1 Forward current vs. Forward voltage

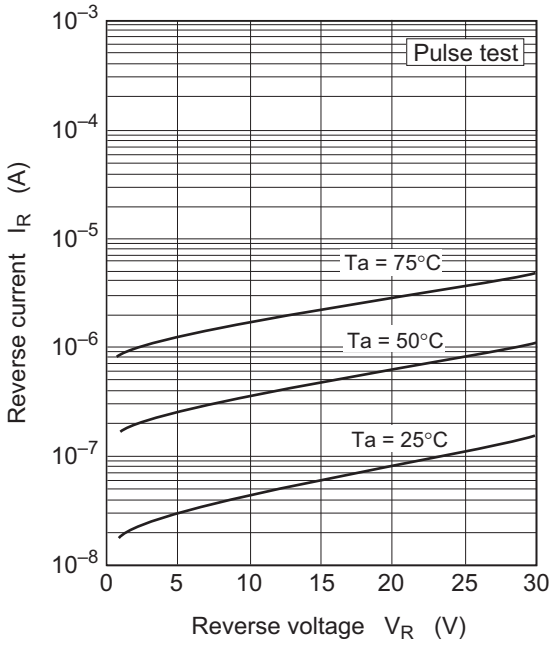


Fig.2 Reverse current vs. Reverse voltage

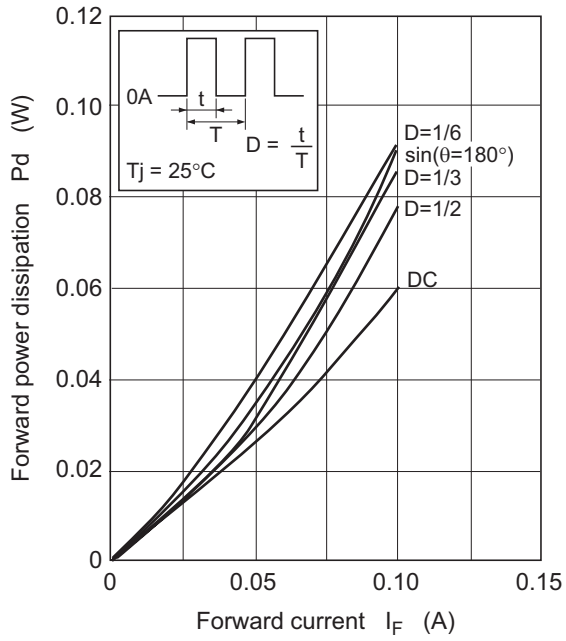


Fig3. Forward power dissipation vs. Forward current

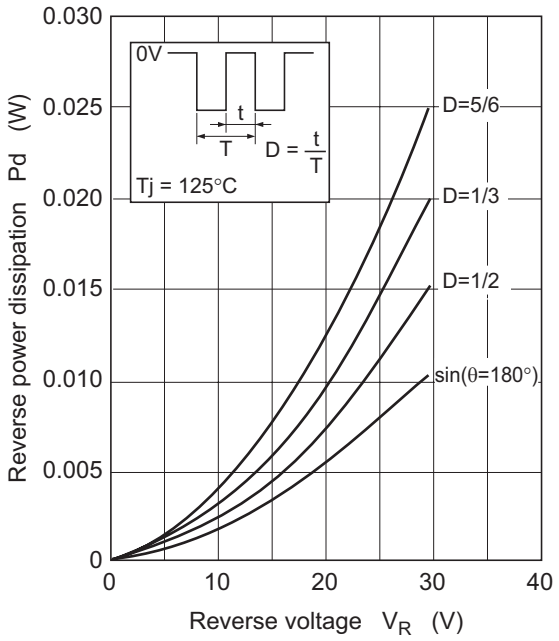


Fig4. Reverse power dissipation vs. Reverse voltage

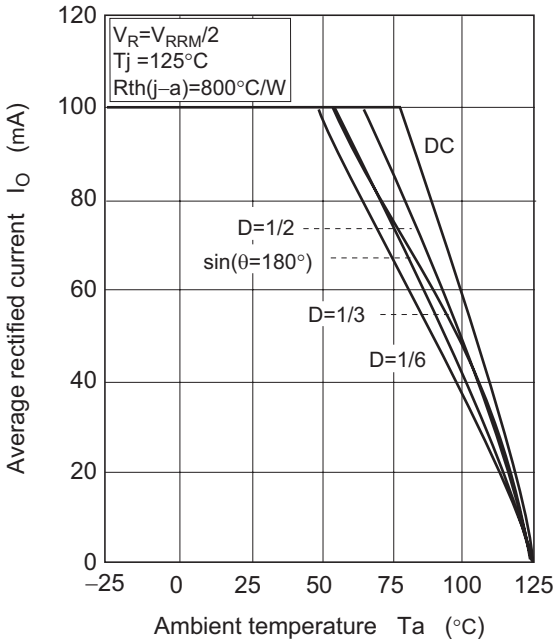
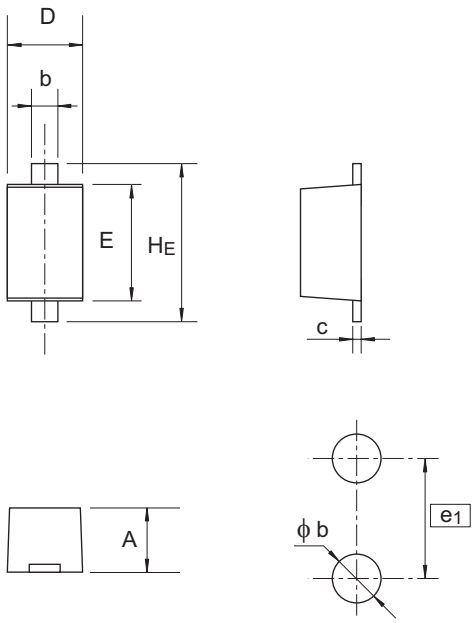


Fig.5 Average rectified current vs. Ambient temperature

Package Dimensions

Package Name	JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
EFP	—	PXSF0002ZA-A	EFP / EFPV	0.0007g



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	0.44	0.47	0.50
b	0.25	0.30	0.35
c	0.08	0.13	0.18
D	0.55	0.60	0.65
E	0.75	0.80	0.85
H_E	0.95	1.00	1.05
ϕ b	—	0.40	—
e1	—	1.00	—

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