HRV103B

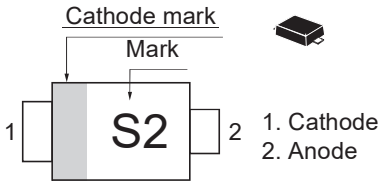
Silicon Schottky Barrier Diode for Rectifying

Features

- Low reverse current and suitable for high efficiency rectifying.

Ordering Information and Pin Arrangement

HRV103BTRF, HRV103BKRF
Package Name : TURP
Package Code : PUSF0002ZC-A
Taping Abbreviation (Quantity)
TRF (4,000 pcs / reel)
KRF (8,000 pcs / reel)



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Reverse voltage	V_R	30	V
Average rectified current	I_O *2	1	A
Non-Repetitive peak forward surge current	I_{FSM} *1	5	A
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

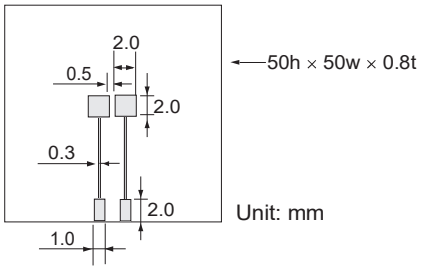
Notes: 1. 10 ms sine wave 1 pulse
2. Ta = 48°C, With Ceramics board (board size: 50 mm × 50 mm, Land size 2 mm × 2 mm)
Short form wave (θ180°C), V_R = 15 V.

Electrical Characteristics

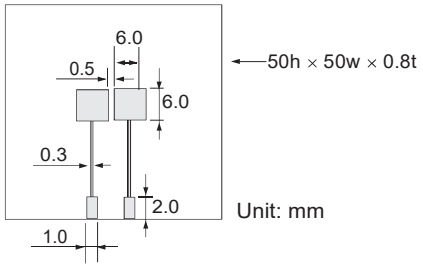
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.35	V	I_F = 100 mA
	V_{F2}	—	—	0.45		I_F = 700 mA
	V_{F3}	—	—	0.50		I_F = 1 A
Reverse current	I_{R1}	—	—	10	μA	V_R = 5 V
	I_{R2}	—	—	100		V_R = 30 V
Capacitance	C	—	—	40	pF	V_R = 10 V, f = 1 MHz
Thermal resistance	Rth(j-a)	—	100	—	°C/W	Ceramics board *1
		—	200	—		Glass epoxy board *2

Notes: 1. Ceramics board



2. Glass epoxy board



3. TURP is the structure which radiates heat to a substrate, please perform mounting to a substrate by reflow.

Main Characteristics

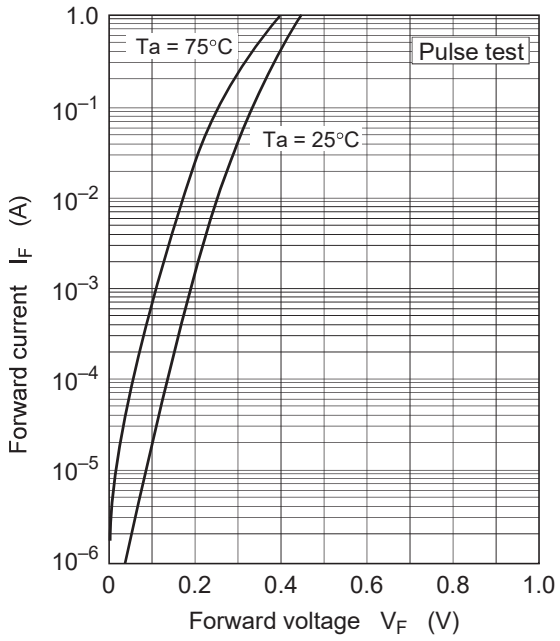


Fig.1 Forward current vs. Forward voltage

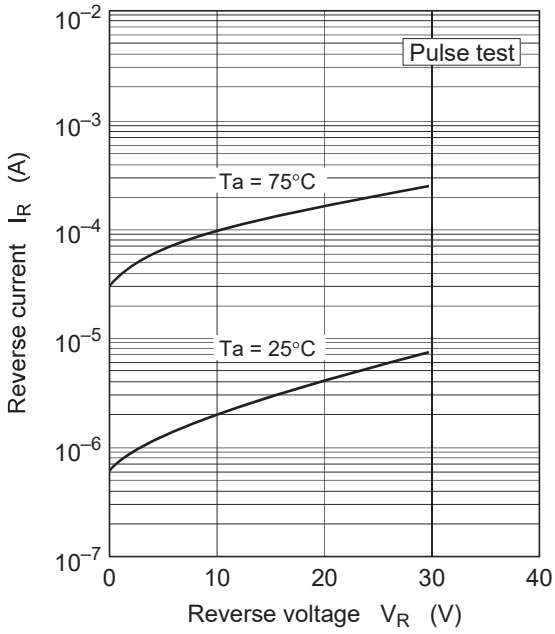


Fig.2 Reverse current vs. Reverse voltage

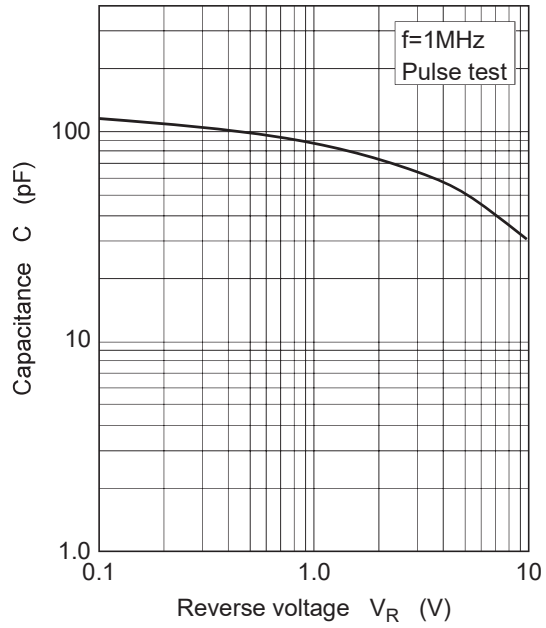


Fig.3 Capacitance vs. Reverse voltage

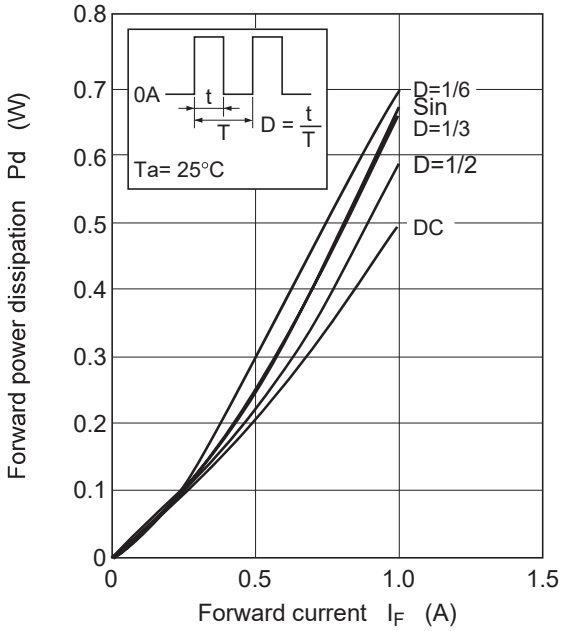


Fig.4 Forward power dissipation vs. Forward current

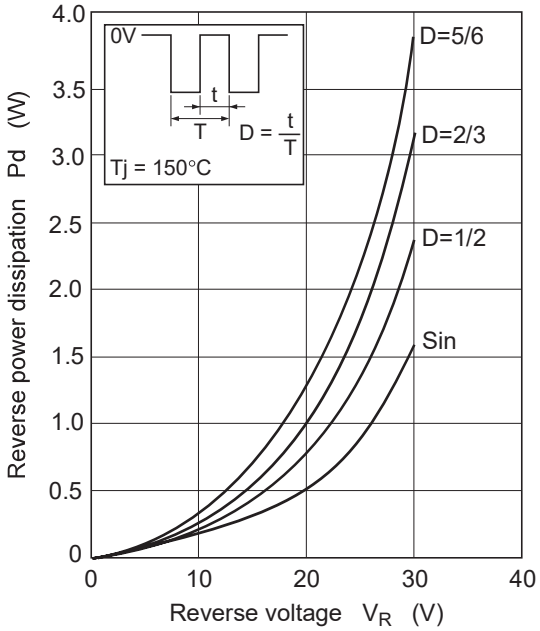


Fig.5 Reverse power dissipation vs. Reverse voltage

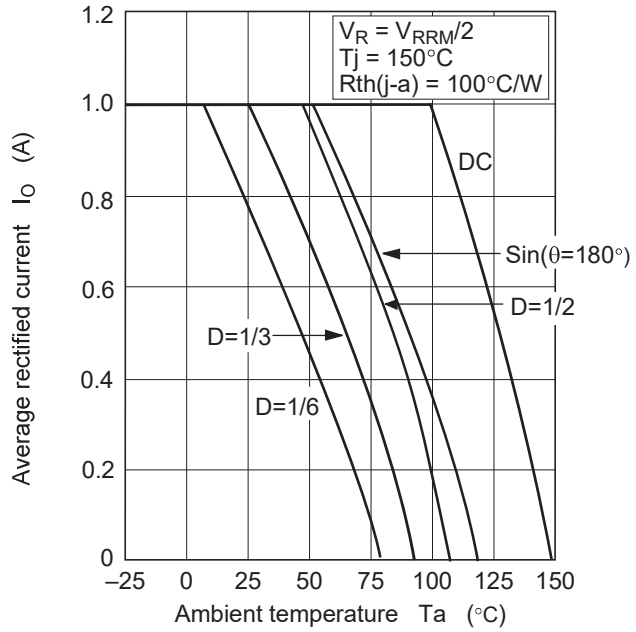


Fig.6 Average rectified current vs. Ambient temperature