

Features

- Repetitive peak forward current
- High switching speed
- Continuous reverse voltage
- Repetitive peak reverse voltage



Applications

- High-speed switching
- General-purpose switching
- Polarity protection application
- Freewheeling diodes



Absolute Maximum Ratings (TA=25°C unless otherwise specified)

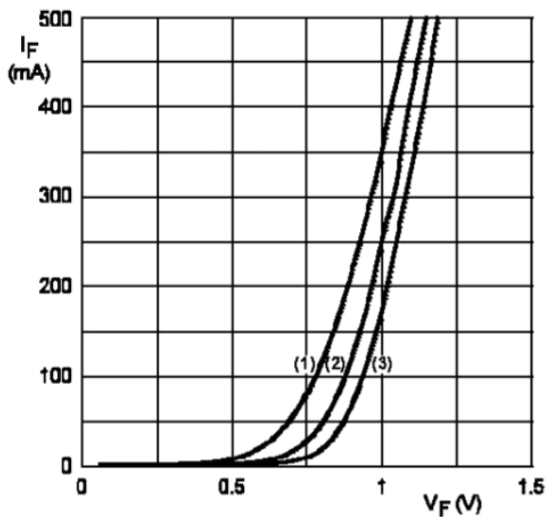
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	VRM	300	V
Peak Repetitive Peak Reverse Voltage	VRRM	300	V
Power Dissipation	PD	150	mW
Average Forward Current	IO	225	mA
Peak Forward Surge Current @t=8.3ms	IFSM	625	mA
Operating Junction and Storage Temperature Range	TJ, TSTG	-55~+150	°C
Thermal Resistance from Junction to Ambient	RθJA	833	°C/W

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF = 1mA	--	0.6	--	V
		IF = 10mA	--	0.7	--	V
		IF = 50mA	--	0.8	--	V
		IF = 150mA	--	--	1.1	V
Maximum Peak Reverse Current	IR	VR = 80V	--	--	150	nA
		VR = 25V	--	50	--	nA
Reverse Breakdown Voltage	VBR	IR= 100μA	300	--	--	V
Total Capacitance	CJ	VR = 0V, f = 1.0MHz	--	--	5	pF
Reverse Recovery Time	trr	IF = IR = 30mA, Irr = 1mA, RL = 100Ω	--	--	50	ns

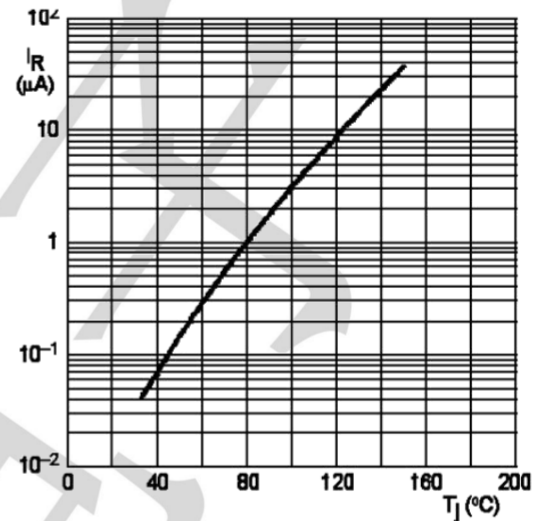
Note 1: The data tested by surface mounted on a 18mm * 15mm * 1mm FR4-epoxy P.C.B

Typical Electrical Characteristic Curves



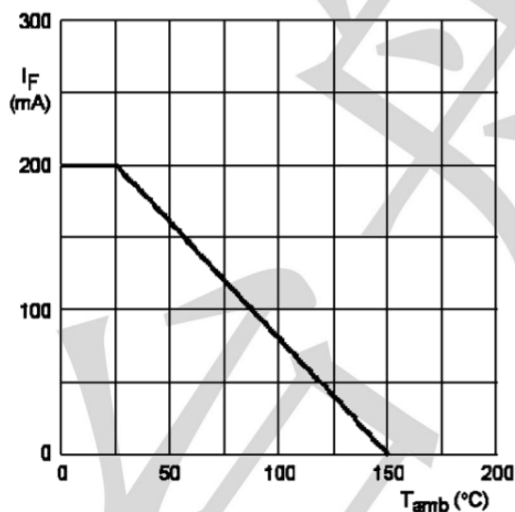
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$.
 (2) $T_{amb} = 75\text{ }^{\circ}\text{C}$.
 (3) $T_{amb} = 25\text{ }^{\circ}\text{C}$.

Forward current as a function of forward voltage; typical values.

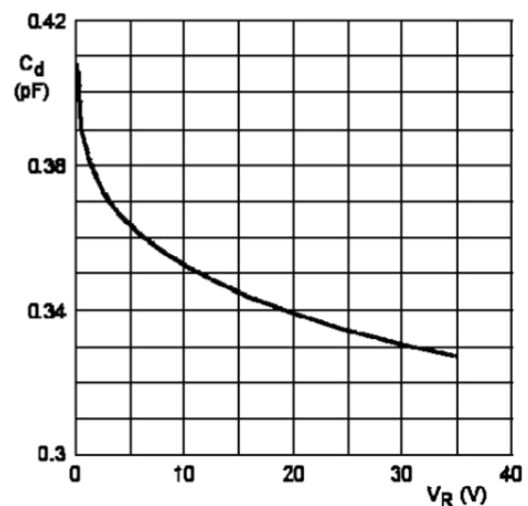


$V_R = V_{Rmax}$; typical values.

Reverse current as a function of junction temperature.



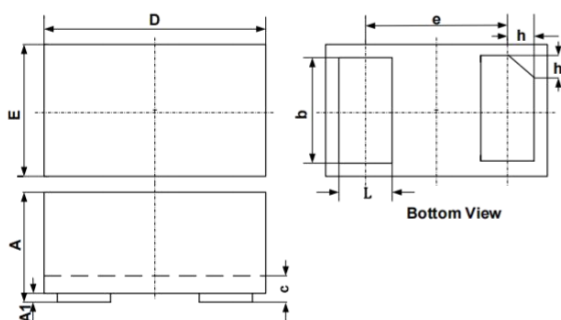
Maximum permissible continuous forward current as a function of ambient temperature.



Diode capacitance as a function of reverse voltage; typical values.

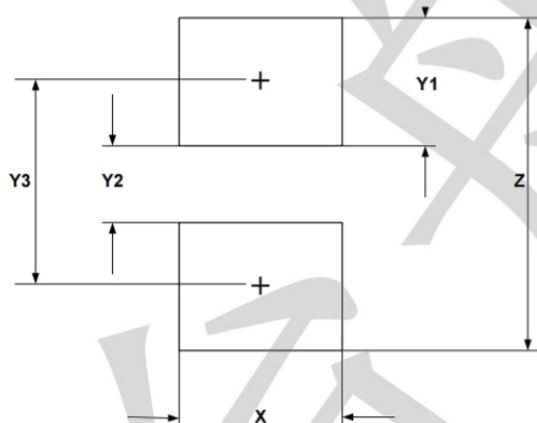
Package Outline & Dimensions

DFN1006-2 (0402)



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
h	0.07	0.12	0.17	0.003	0.005	0.007

SOLDERING FOOTPRINT



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.60	0.024
Y1	0.50	0.020
Y2	0.30	0.012
Y3	0.80	0.032
Z	1.30	0.052