FEATURES

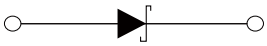
- Low Forward Voltage Drop
- Extremely Small DFN1006 Package
- Surface Device Type Mounting
- Green EMC
- Band Indicates Cathode

DFN1006

Marking

APPLICATION

- Low voltage rectification
- Reverse polarity protection
- Low power consumption applications



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS (T_A=25°C)

Parameter	Symbol	Value	Unit
Maximum DC blocking reverse voltage	V_R	30	V
Average Forward Current	$I_{F(AV)}$	500	mA
Repetitive Peak Forward Current (tp ⩽ 1ms)	I_{FRM}	1	A
Peak Forward Surge Current (tp = 8.3ms)	I_{FSM}	3	A
Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-65 to 150	°C

MAXIMUM RATINGS (T_A=25°C)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse Current	V_R=10V	I_R			200	μA
	V_R=30V				500	
Forward Voltage	I_F=0.1mA	V_F			0.18	V
	I_F=1mA				0.20	
	I_F=10mA				0.27	
	I_F=100mA				0.36	
	I_F=500mA				0.50	
Total Capacitance at VR=1V,f=1MHz		C_T			30	pF

CHARACTERISTIC CURVES

Fig.1 Reverse Characteristic Curve

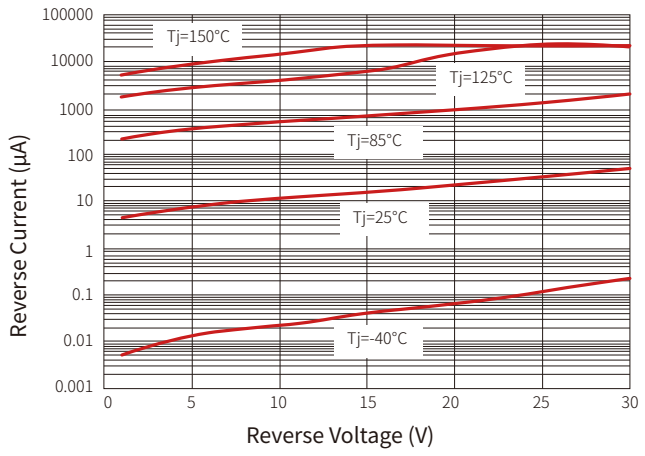


Fig.2 Forward Characteristic Curve

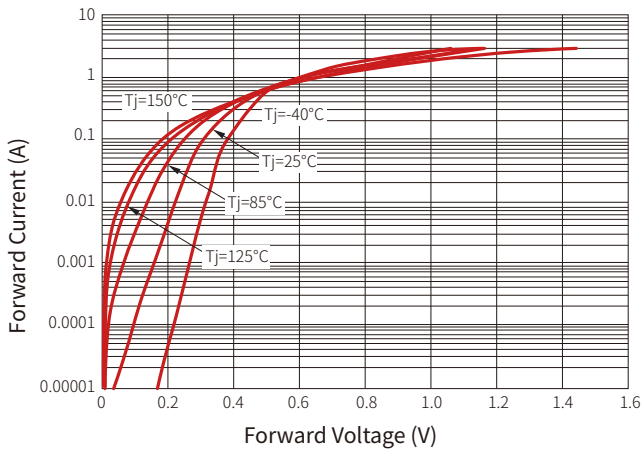
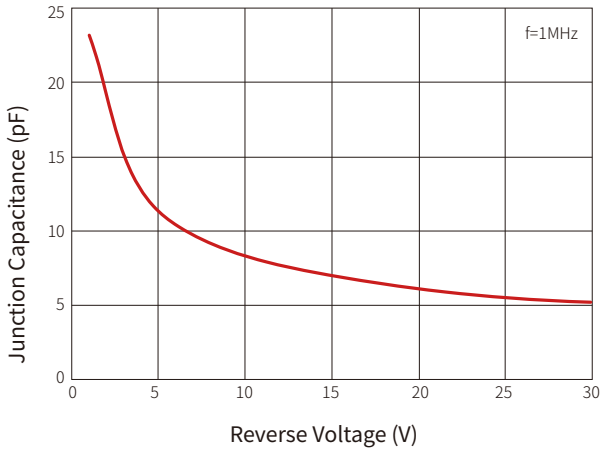
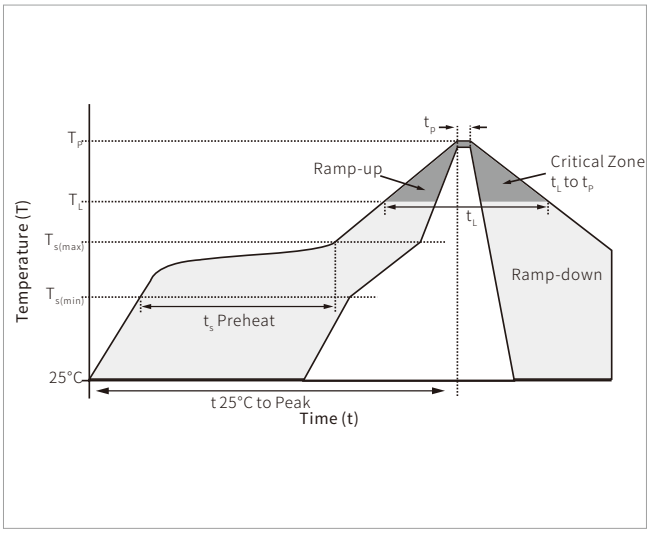


Fig.3 Junction Capacitance

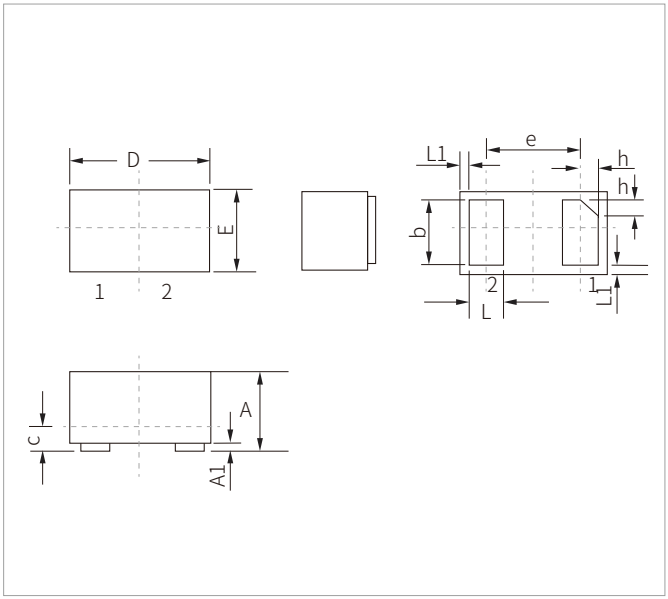


SOLDERING PARAMETERS

Reflow Condition		Lead–free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{S(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes max.
Do not exceed		260°C

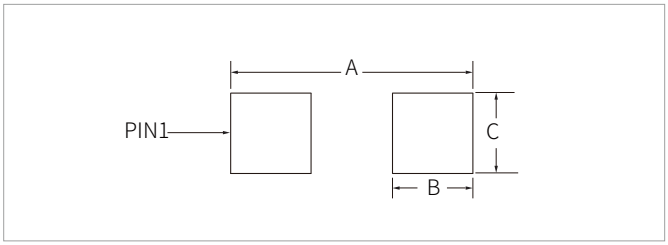


DFN1006 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.40	0.60	0.016	0.024
A1	0	0.05	0	0.002
b	0.40	0.55	0.016	0.022
c	0.12	0.18	0.005	0.007
D	0.90	1.10	0.035	0.043
e	0.65BSC		0.026BSC	
E	0.55	0.75	0.022	0.030
L	0.20	0.35	0.008	0.014
L1	0.05REF		0.002REF	
h	0.07	0.17	0.003	0.007

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	1.20	0.047
B	0.47	0.019
C	0.60	0.024

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SRB0503D1	DFN1006	10000PCS	7”

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