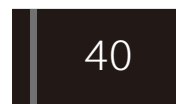


FEATURES

- | Low Forward Voltage Drop
- | Peak Reverse Voltage: 40.0 V
- | Low Reverse Leakage
- | Fast Reverse Recovery : Ns Level
- | High Reliability



DFN1006



Marking

APPLICATION

- | Reverse Protection Diode
- | Switching Diode
- | Clamping Protection



Schematic Symbol

APPROVALS

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

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	40	V
Average rectified forward current	I_{FO}	1	A
Operating Temperature Range	T_J	-55 to 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to 125	$^{\circ}\text{C}$

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse Voltage	$I_R=1\text{mA}$	V_R	40			V
Reverse Current	$V_R=40\text{V}$	I_R			100	μA
Forward Voltage	$I_F=100\text{mA}$	V_F			0.40	V
	$I_F=500\text{mA}$				0.50	
	$I_F=1.0\text{A}$				0.60	

CHARACTERISTIC CURVES

Fig.1 Typical Forward Current Derating Curve

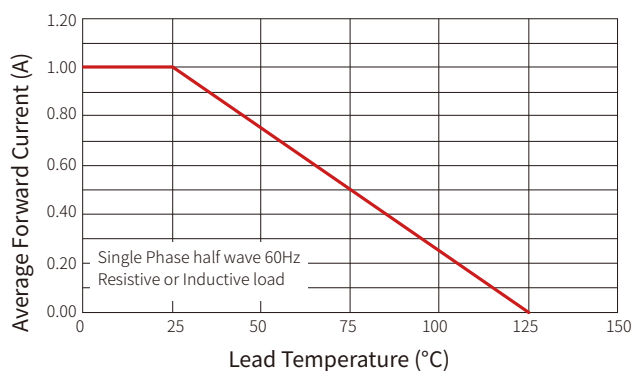


Fig.2 Total Capacitance vs.Reverse Voltage

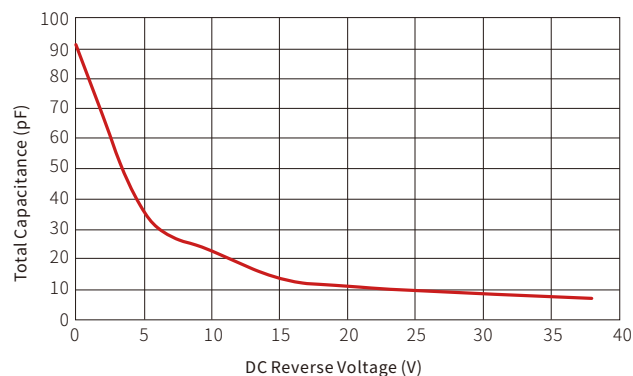
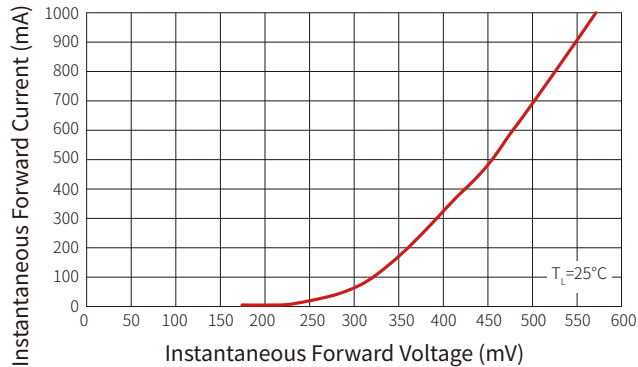
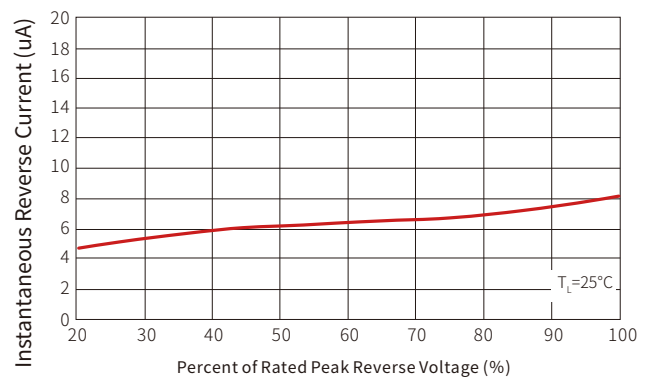
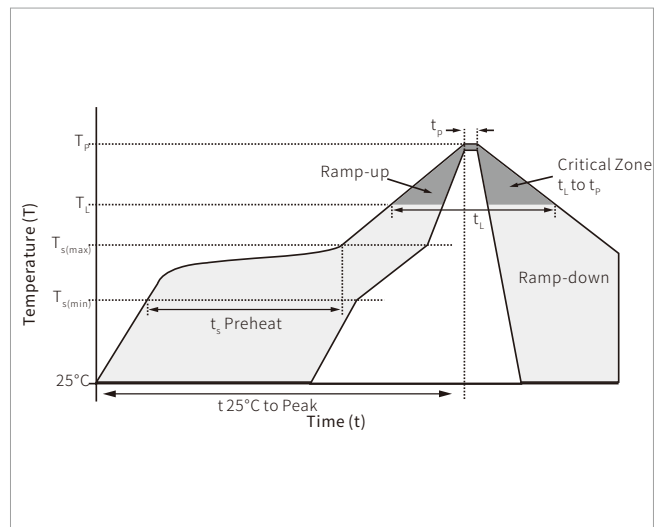


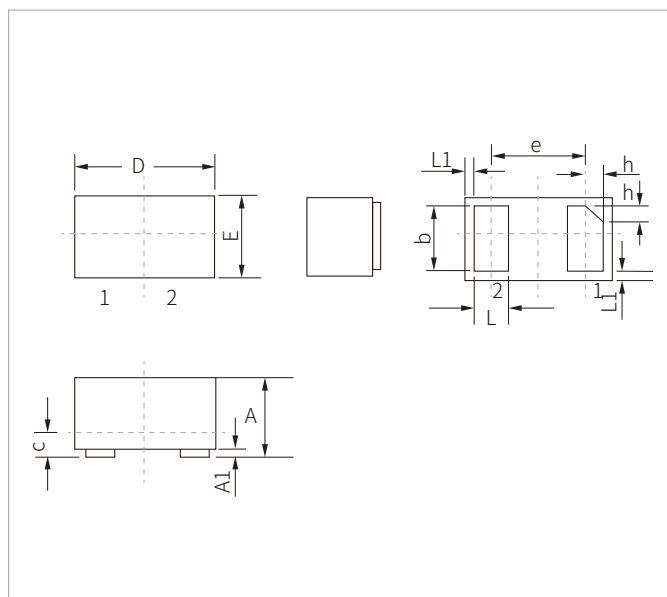
Fig.3 Typical Instantaneous Forward Characteristics

Fig.4 Typical Reverse Characteristics


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

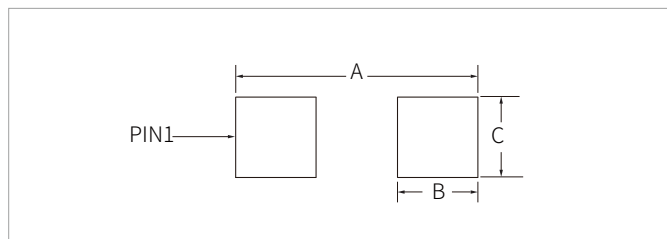


DFN1006 PACKAGE INFORMATION



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
SRB1040D1	DFN1006	10000PCS	7"

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