BZX884-C47

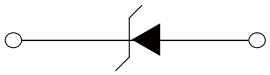
Surface Mount Zener Diode

FEATURES

- Extremely Small DFN1006 Package
- Planar Die Construction
- 250mW Power Dissipation
- Zener Voltages from 47V
- Green EMC



DFN1006



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 Forward Voltage @ I_F=10mA	V_F	0.9	V
Power Dissipation	$P_{(AV)}$	250	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	°C/W
Peak Forward Surge Current	I_{FSM}	2.0	A
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 ~ +150	°C

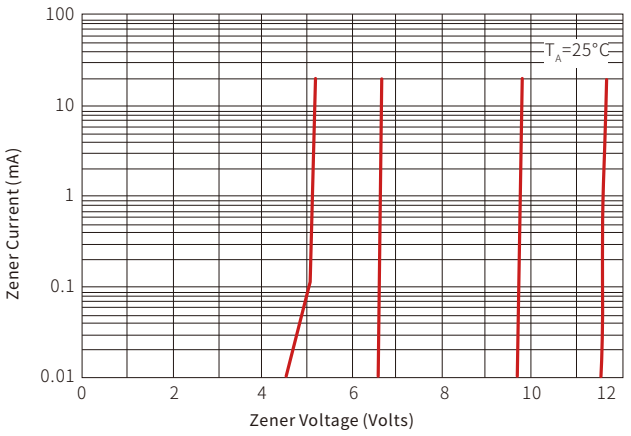
ELECTRICAL CHARACTERISTICS

Part Number	Device Marking Code	Zener Voltage Range*1				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	I_R	V_R
		Nom.(V)	Min.(V)	Max.(V)	mA	Ω	Ω	mA	uA	V
BZX884-C47	DD	47	44.65	49.35	2	170	375	0.5	0.05	32.9

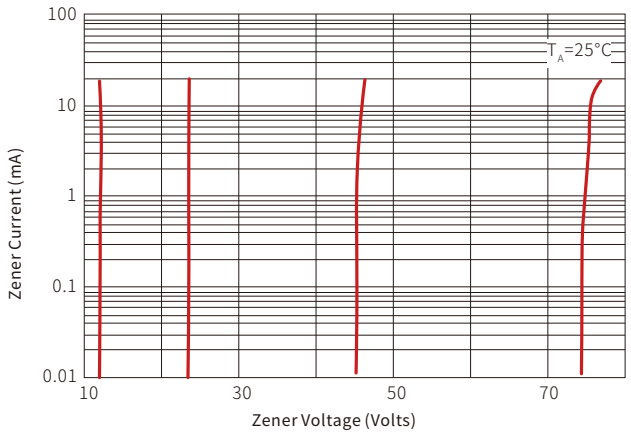
*1 Pulse width = 10 ms

CHARACTERISTIC CURVES

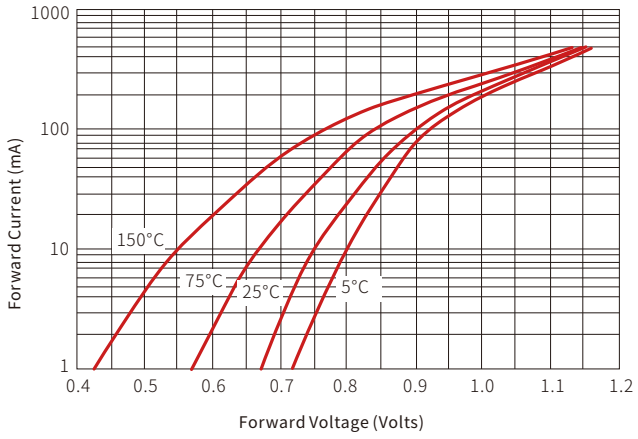
Zener Characteristics



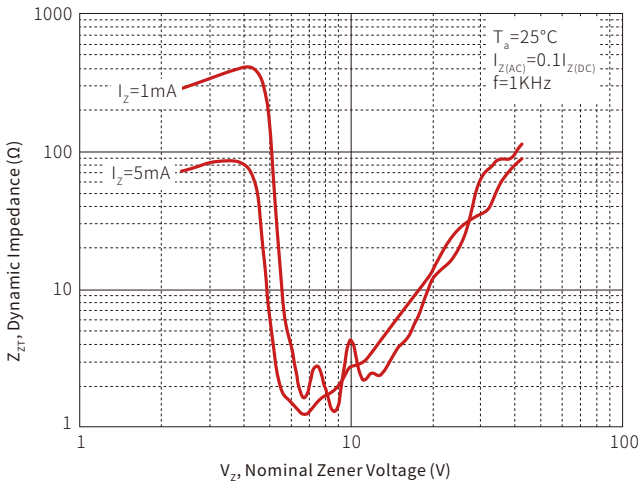
Zener Characteristics



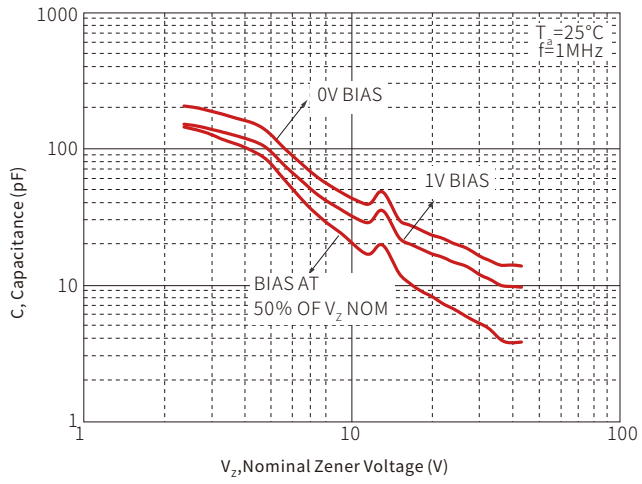
Forward Characteristics



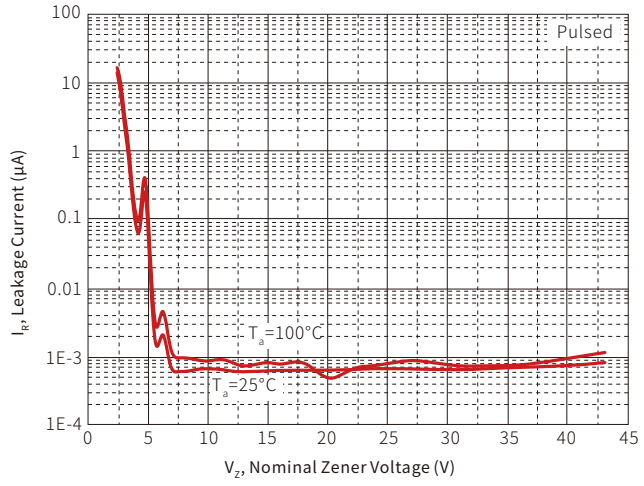
Effect of Zener Voltage on Zener Impedance

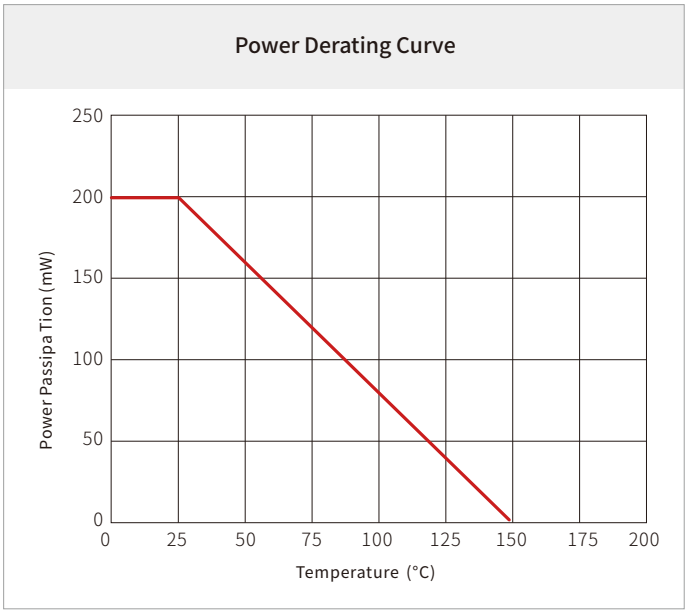


Typical Capacitance



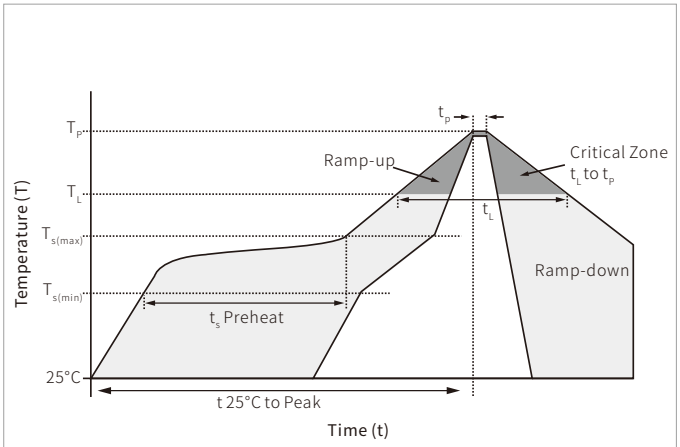
Typical Leakage Current



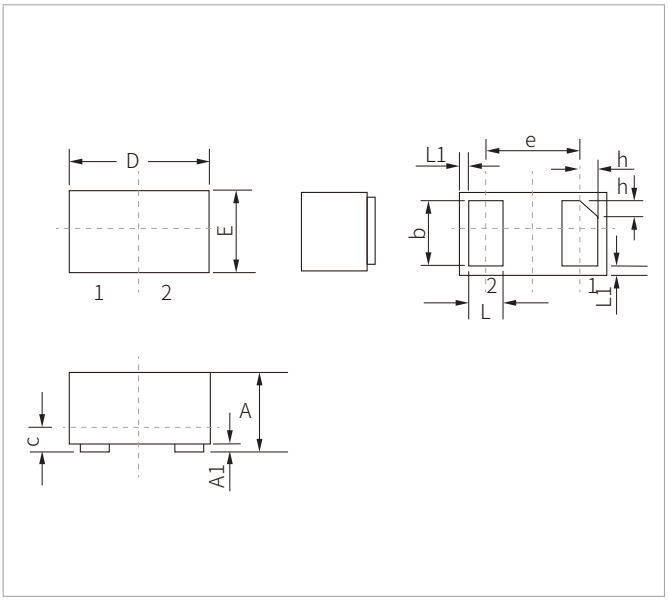


SOLDERING PARAMETERS

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

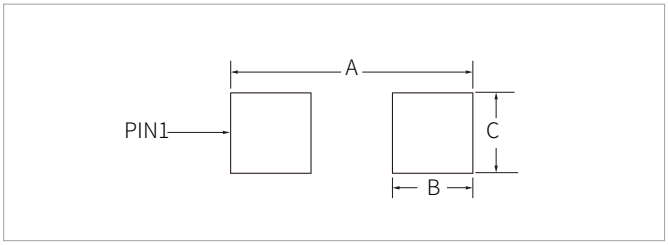


DFN1006 PACKAGE INFORMATION



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
BZX884-C47	DFN1006	10000PCS	7”

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