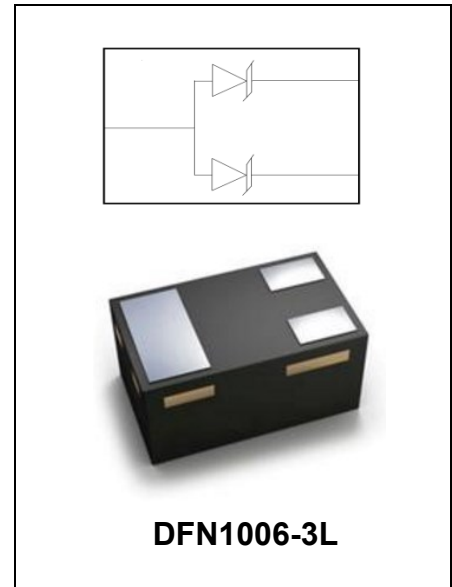


Features

- ◆ low Capacitance 0.6pF
- ◆ Low Clamping Voltage
- ◆ Small Body Outline Dimensions: 0.039" x 0.024"
(1.0 mm x 0.60 mm)
- ◆ Low Body Height: 0.019" (0.5 mm)
- ◆ Stand-off Voltage: 5.0V
- ◆ Low Leakage
- ◆ Response Time is Typically < 1 ns
- ◆ IEC61000-4-2 Level 4 ESD Protection for data lines
- ◆ These are Pb-Free Devices



Applications

- ◆ 10/100/1000 Mbits/s Ethernet
- ◆ FireWire
- ◆ Display ports
- ◆ MDDI ports
- ◆ Digital Visual Interface (DVI)
- ◆ Cellular handsets & accessories
- ◆ Computer and peripherals

Maximum Rating @ Ta=25°C unless otherwise specified

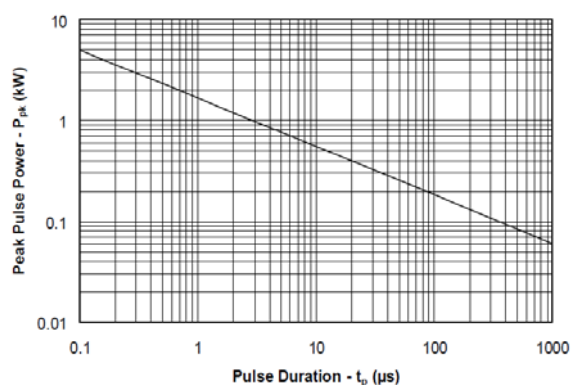
Symbol	Parameter		Ratings	Units
ESD	IEC 61000-4-2 (HBM-ESD)	Contact	8	KV
		Air	15	
T _L	Lead Soldering Temperature		260(10sec.)	°C
T _J	Operating Temperature		-55 to +125	°C
T _{STG}	Storage Temperature		-55 to +150	°C

Electrical Characteristics@ Ta=25°C unless otherwise

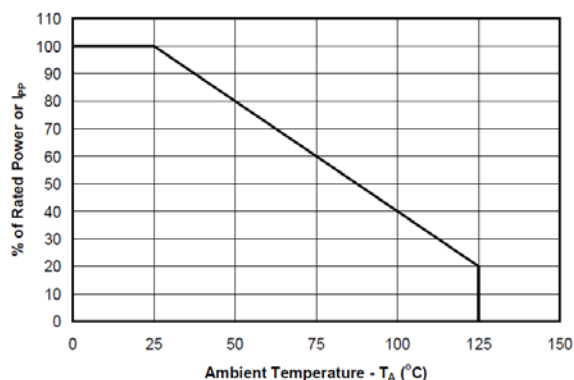
Parameter	Marking	VRWM @IR		VBR@ImA	VC@1A	VC@IPP		CJ
		V	μA	V	V	V	A	pF
			MAX	MIN	MAX	MAX		MAX
ZX0531P		5	1	6.2	9.8	15	3.5	0.6

Typical Characteristics@ Ta=25°C unless otherwise specified

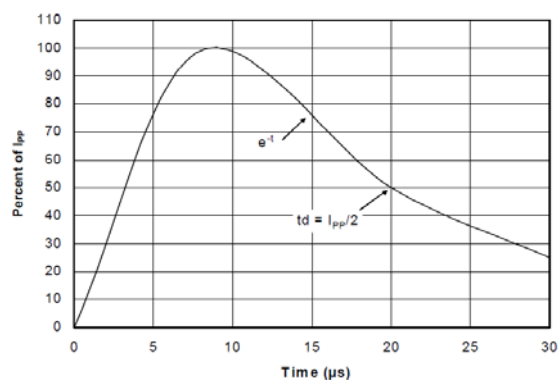
Non-Repetitive Peak Pulse Power vs. Pulse Time



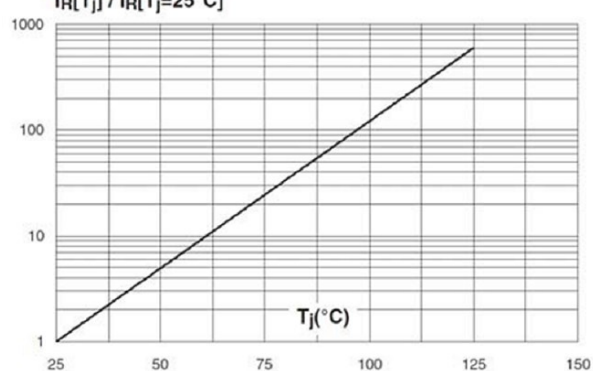
Power Derating Curve



Pulse Waveform

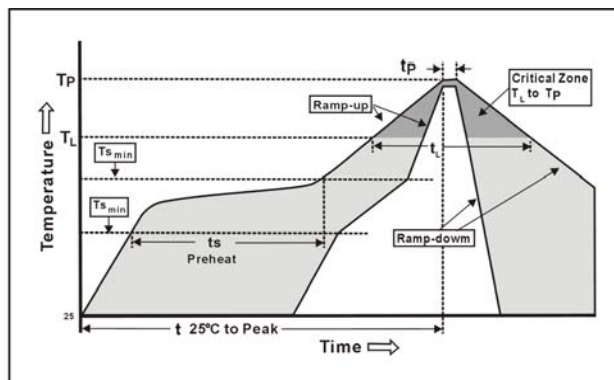


$I_R(T_J) / I_R(T_J=25^\circ\text{C})$



Soldering Parameters

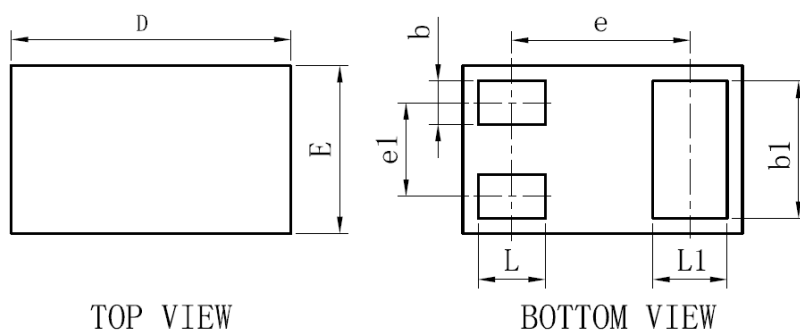
Reflow Condition		Fb – Free assembly
Pre Heat	- Temperature Min ($T_{s(Min)}$)	150°C
	- Temperature Max ($T_{s(Max)}$)	200°C
	- Time (Min to max) (t_p)	60 – 180 secs
Average ramp up rate (Liquidus) Temp (T_L) to peak		3°C/second Max
$T_{s(Max)}$ to T_L - Ramp-up Rate		3°C/second Max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)		250 ^{+0/-5} °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



Package Outline

Plastic surface mounted package

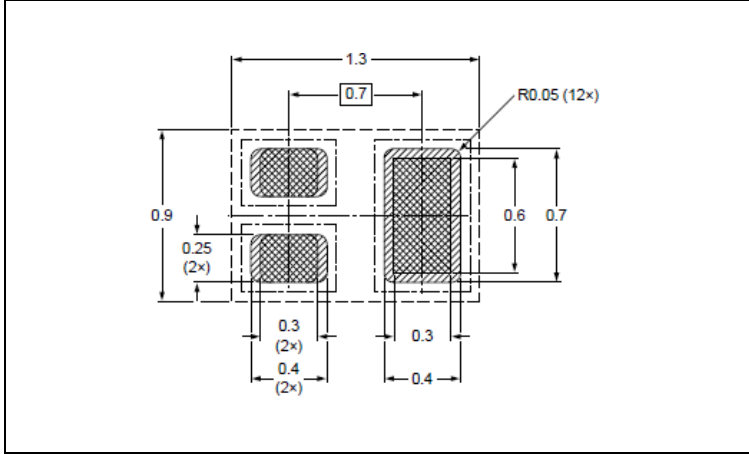
DFN 1006-3L



DFN1006-3L			
Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	–	0.64	–
e1	–	0.34	–
L	0.19	0.24	0.29
L1	0.22	0.27	0.32
b	0.10	0.15	0.20
b1	0.44	0.49	0.54
A	0.43	0.48	0.53
A1	0	–	0.05

All Dimensions in mm

Soldering Footprint



Package And Marking Information

Device	Package	Shipping	Reel Size
ZX0531P	DFN1006-3L	10K/Reel	7 inch