Descriptions

This is working voltage 18.0V ESD protection diode in a DFN2*2-3L package.

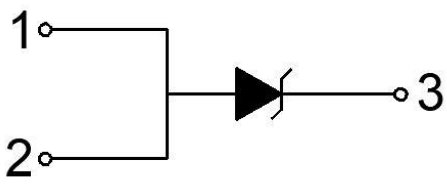
Features

- 3-pin lead-less package
- Junction capacitance (Max value: 1300pF)
- Peak Pulse Current (8/20μs) MAX：180A
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages：18V
- RoHS Compliant

Applications

- Power Management
- Industrial Application
- Power Supply Protection

Equivalent Circuit & Pinning



DFN2*2-3L

Absolute Maximum Ratings(Ta=25℃)

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P_{PP}	6450	W
Peak Pulse Current (8/20μs)	I_{PP}	180	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	V_{ESD}	±30 ±30	KV
Operating Temperature Range	T_J	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

Electrical Characteristics(Ta=25℃)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				18	V
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 1mA	20		22.5	V
Reverse Leakage Current	I_R	V_R = 18V			0.5	uA
Clamping voltage	V_C	I_{PP} = 20A,T_P=8/20us			25	V
Clamping voltage	V_C	I_{PP} = 180A,T_P=8/20us			40	V
Junction capacitance	C_T	V_R =0V,f = 1MHz			1300	pF

Electrical Characteristic Curve

FIG1：Power rating derating curve

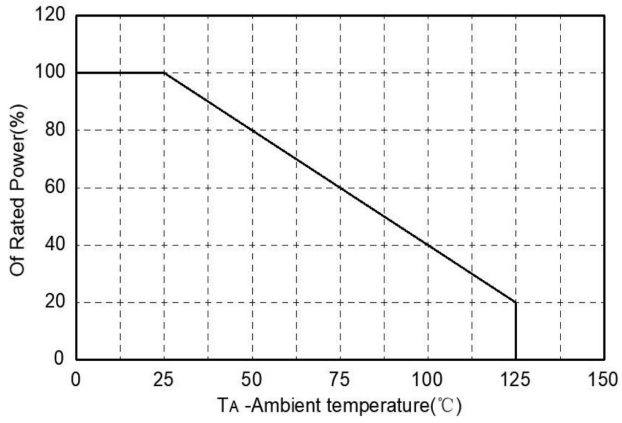


FIG2： pulse Waveform

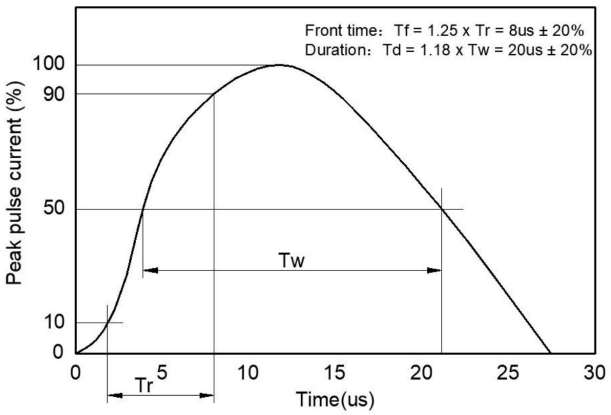


FIG3：Capacitance between teminals charateristics

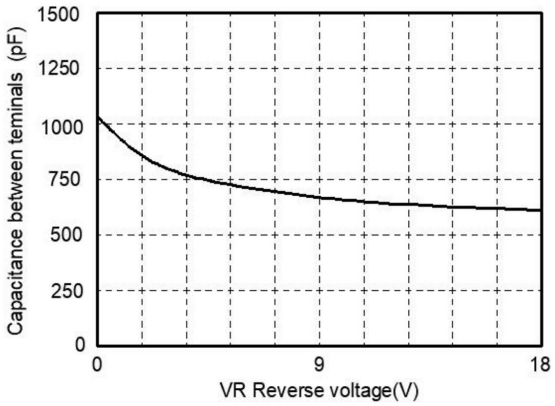
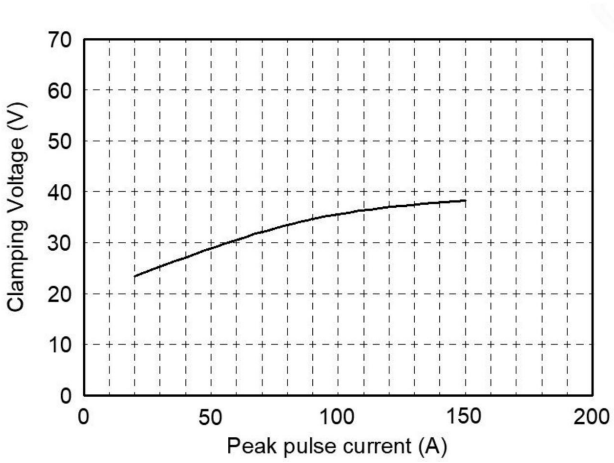
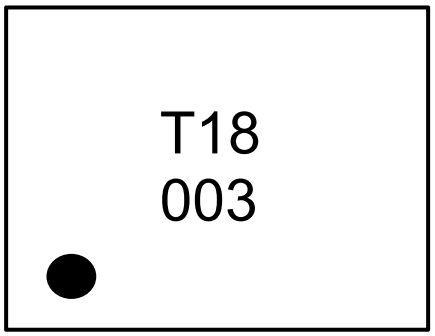


FIG4: Clamping Voltage vs. Peak Pulse Current



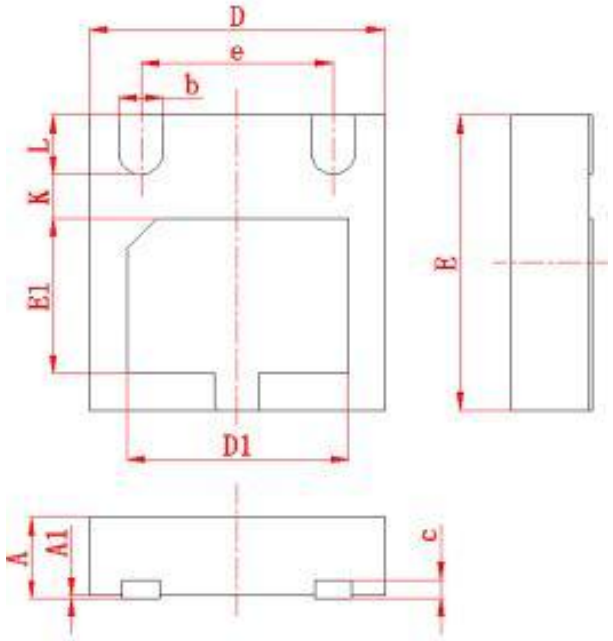
Marking Instructions



T18 003 = Marking Code

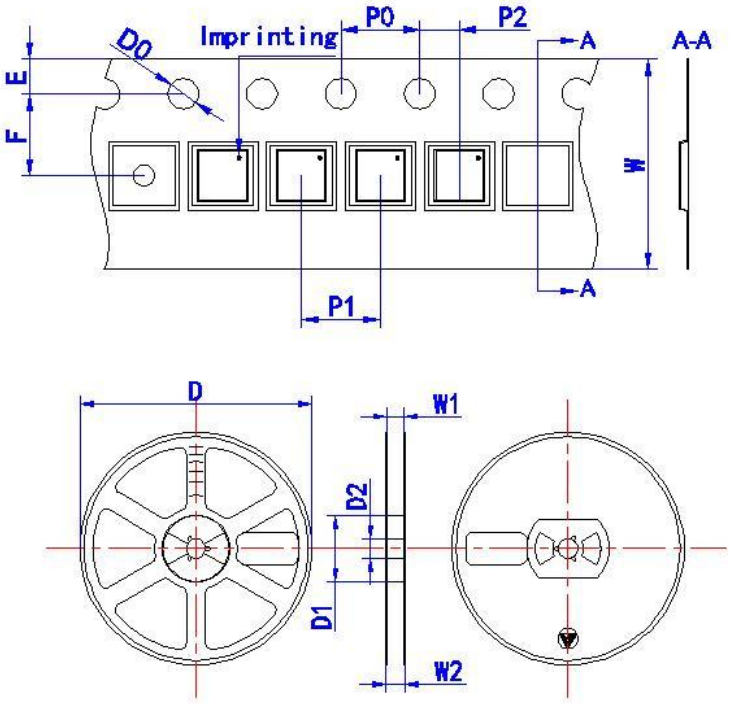
Package Outline Dimensions

DFN2*2-3L



Symbol	Millimeters	
	min	max
A	0.50	0.60
A1	0	0.05
D	1.9	2.1
D1	1.4	1.6
E	1.9	2.1
E1	0.95	1.15
K	(0.3)	
e	(1.3)	
c	(0.127)	
b	0.25	0.35
L	0.35	0.45

Tape & reel specification - DFN2*2-3L



Symbol	Dimension in Millimeters
Tape	
D0	1.50+0.10/-0.00
E	1.75±0.10
F	3.50±0.10
P0	4.00±0.10
P1	4.00±0.10
P2	2.00±0.10
W	8.00+0.3/-0.1
Reel	
D	178.0±2.00
D1	54.40±1.00
D2	13.00±1.00
W1	9.50±1.00
W2	12.30±1.00