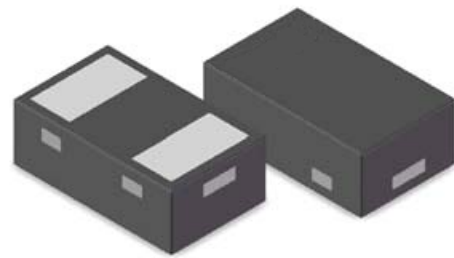


General Capacitance Series ESD Protection PTN062G15M3B18

Features

- 180Watts peak pulse power ($T_P = 8/20\mu s$)
- Tiny DFN0603 package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current



DFN0603

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 12A (8/20 μs)

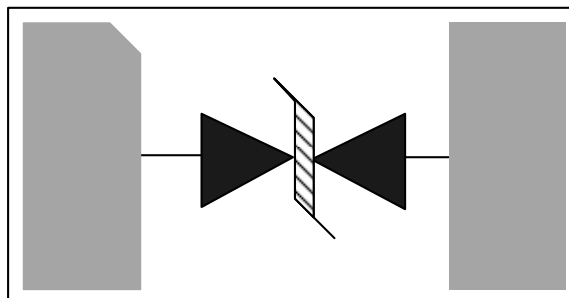
Mechanical Data

- DFN0603 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Schematic & PIN Configuration



DFN0603

General Capacitance Series ESD Protection PTN062G15M3B18

Absolute Maximum Ratings

Rating	Symbol	Value	Unit
Peak Pulse Power ($T_P = 8/20\mu s$)	P_{PPM}	180	W
Peak Pulse Current ($T_P = 8/20\mu s$) (note1)	I_{PP}	12	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	30	kV
ESD per IEC 61000-4-2 (Contact)		30	
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +125	$^{\circ}C$

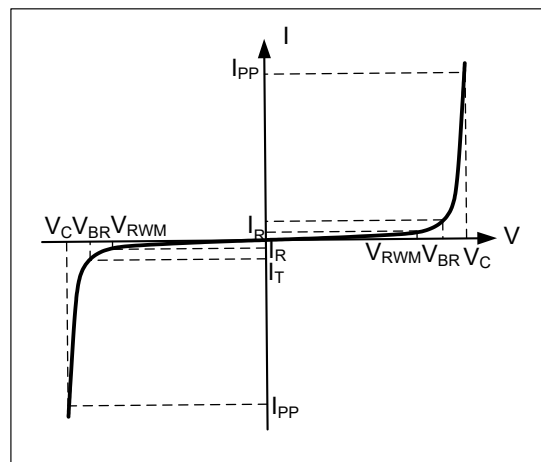
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	3.5			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V, T = 25^{\circ}C$			0.5	μA
Peak Pulse Current	I_{PP}	$T_P = 8/20\mu s$		12		A
Clamping Voltage	V_C	$I_{PP} = 12A, T_P = 8/20\mu s$		15		V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		15		pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current

Note: 8/20 μs pulse waveform.



General Capacitance Series ESD Protection PTN062G15M3B18

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

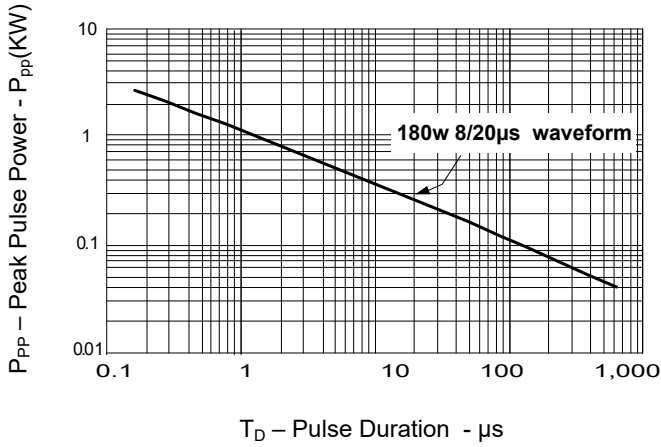


Figure 2: Power Derating Curve

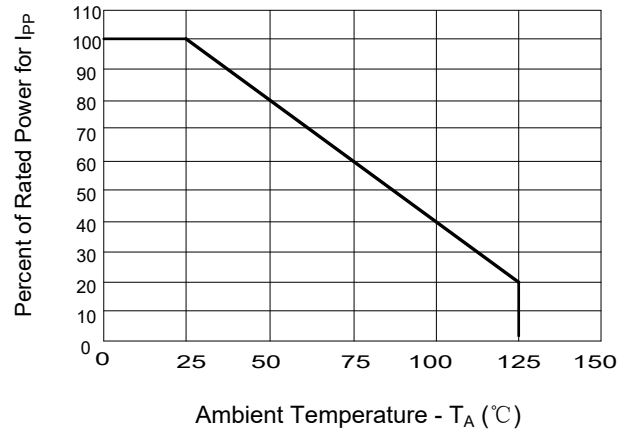


Figure3: Pulse Waveform

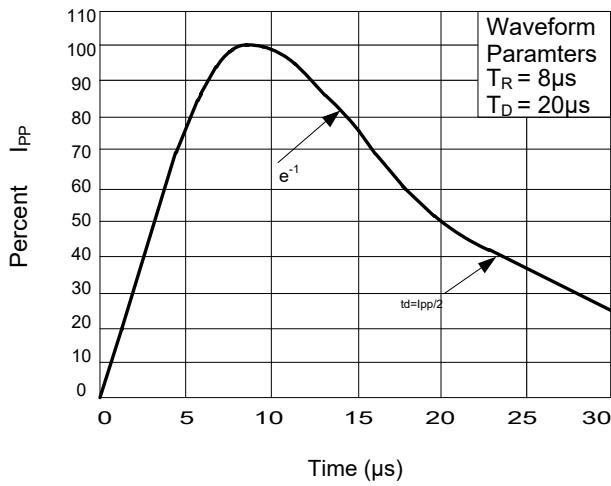
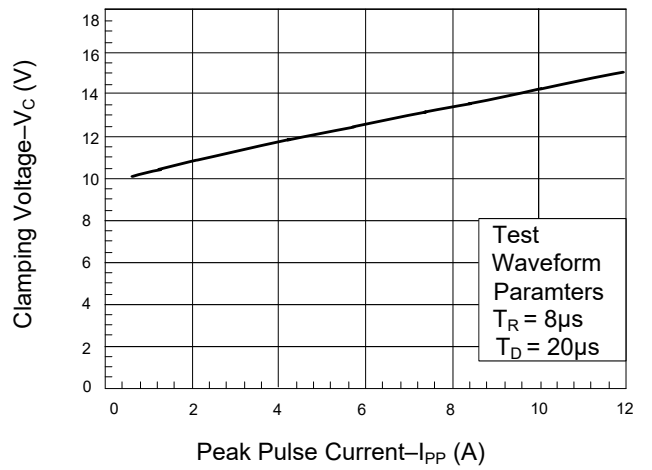


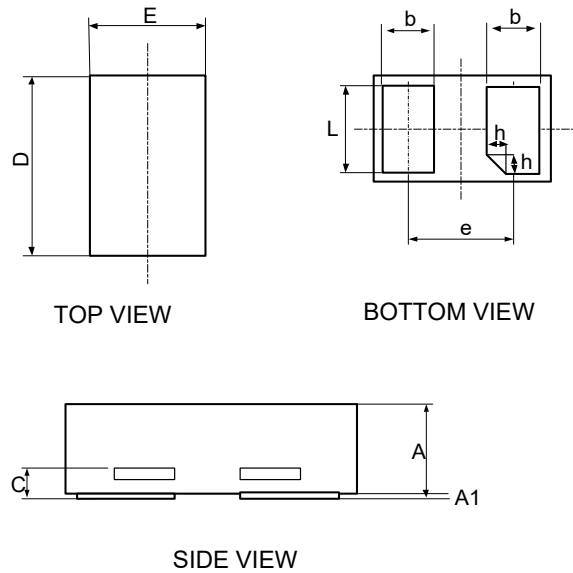
Figure 4: Clamping Voltage vs. I_PP



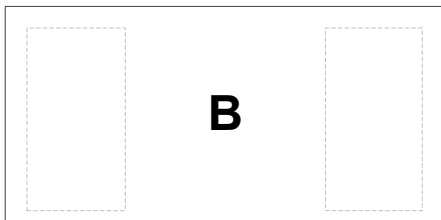
General Capacitance Series
ESD Protection
PTN062G15M3B18

Outline Drawing – DFN0603

Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.28	0.30	0.32
A1	0.00	0.02	0.05
C	0.05	0.10	0.15
D	0.55	0.60	0.65
E	0.25	0.30	0.35
b	0.14	0.19	0.24
L	0.20	0.25	0.30
h	0.00	0.05	0.10



Marking Information



Ordering Information

Order code	Package	Base qty	Delivery mode
PTN062G15M3B18	DFN0603	10K	Tape and reel