

# ME15VZ1UAD

## 1. Protection Solution To Meet

- IEC61000-4-2 (ESD)  $\pm 30\text{kV}$  (air),  $\pm 30\text{kV}$  (contact)
- IEC61000-4-4 (EFT) 80A (5/50ns)
- IEC61000-4-5 (Lightning) 70A (8/20 $\mu\text{s}$ )

## 2. Features

- Protects one Uni-directional Vbus
- Low clamping voltage
- Working voltage: 15V
- Low leakage current
- RoHS compliant

## 3. Main Application

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA' s)
- Notebooks, desktops, and servers
- Portable instrumentation

## 4. Mechanical Characteristics

- DFN1610-2L package
- Molding compound flammability rating: UL 94V-0
- Weight 6 milligrams (approximate)
- Lead finish: lead free
- Marking code: Z15U

## 5. Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Contact)	$V_{\text{ESD-Contact}}$	$\pm 30$	KV
ESD per IEC 61000-4-2 (Air)	$V_{\text{ESD-Air}}$	$\pm 30$	KV
Peak Pulse Power(8/20us)	$P_{\text{pp}}$	1960	W
Operating Temperature	$T_{\text{OPT}}$	-55~+150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	-55~+150	$^\circ\text{C}$

## 6. Pinning information

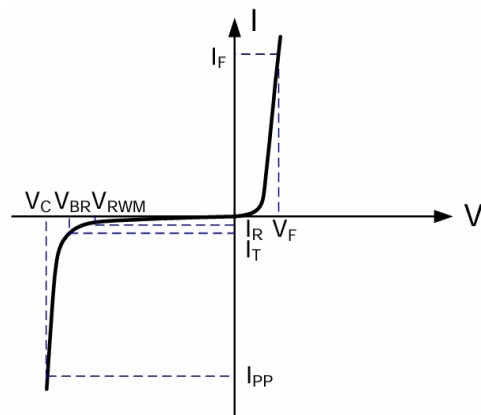
Simplified outline	Equivalent Circuit	Marking	Package
			DFN1610-2L

## 7. Electrical Characteristics (Tamb = 25°C)

Parameter	Symbols	Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				15	V
Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	16.3			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 15V$			0.1	$\mu A$
Clamping Voltage	$V_C$	$I_{pp} = 70A, t_p = 8/20\mu s$		25	28	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$		300		pF

## 8. Electrical Parameters

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 @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$
$V_F$	Forward Voltage
$I_F$	Forward Test Current



## 9. Typical Characteristics

Fig.1 8/20us Waveform Per IEC6100-4-5

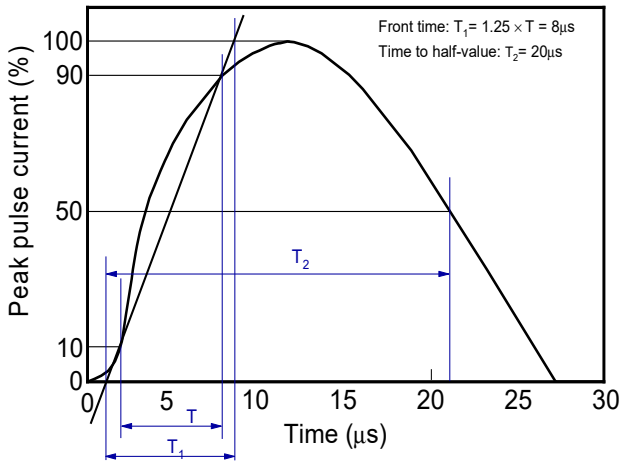


Fig.2 Contact Discharge Current Waveform per IEC61000-4-2

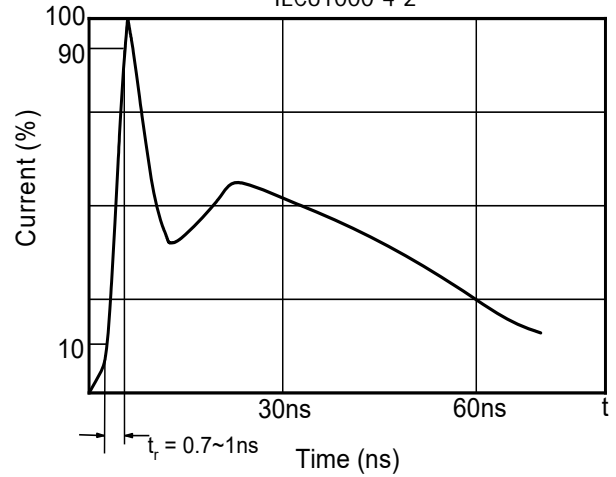


Fig.3 Clamping Voltage Vs. Peak Pulse Current

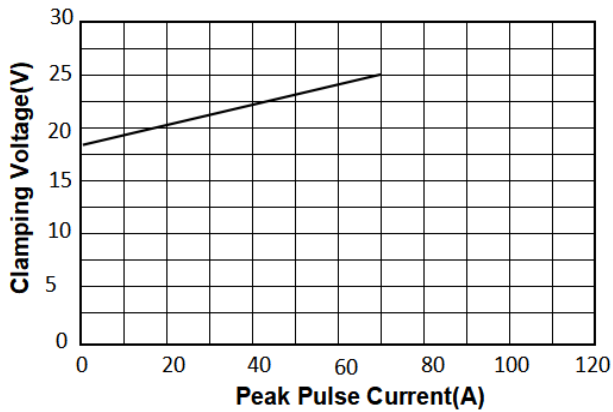
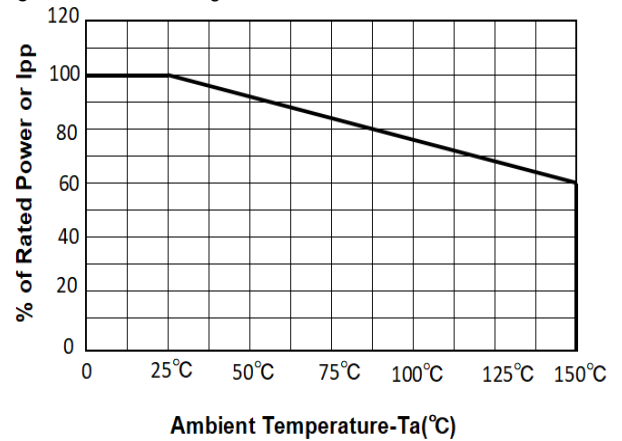
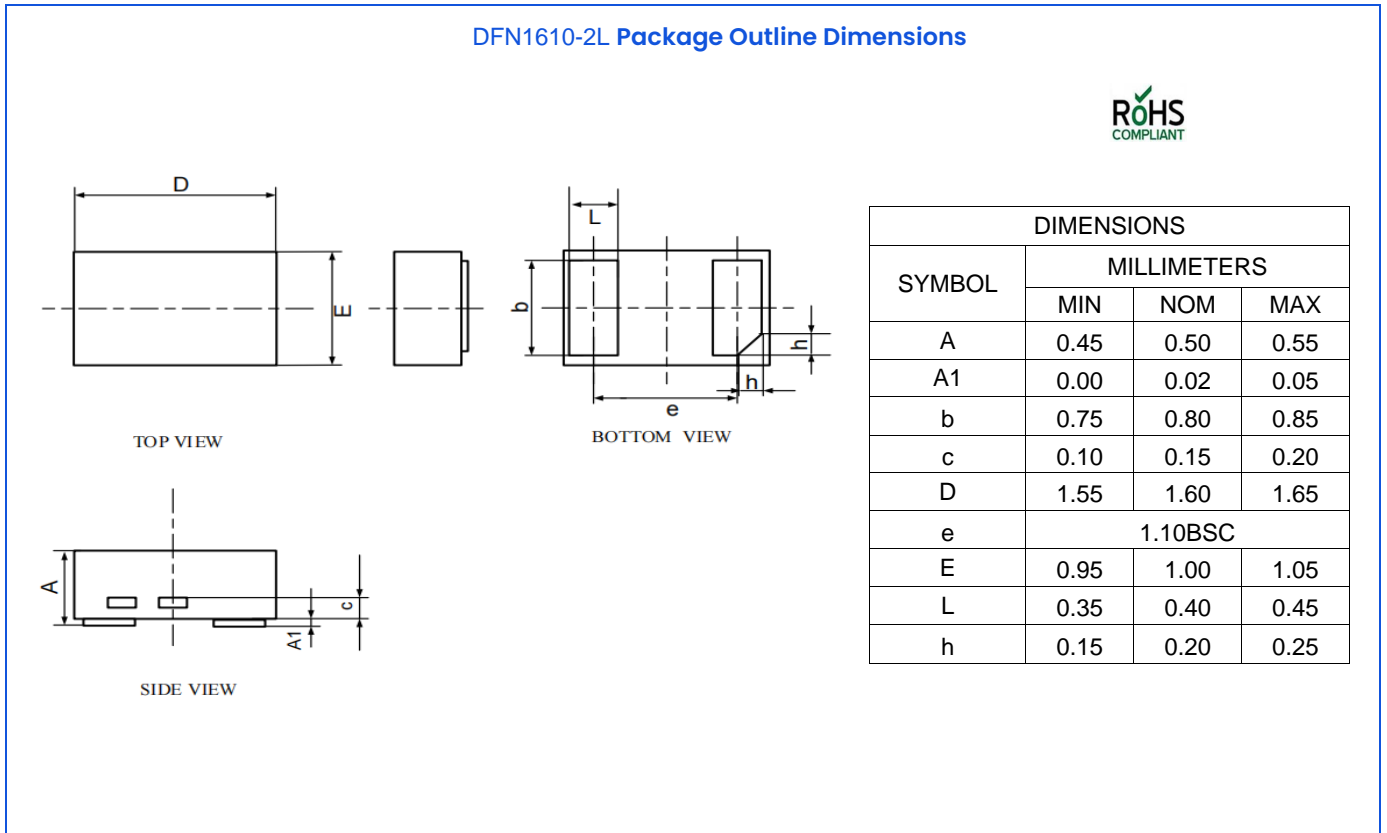


Fig.4 Power Derating

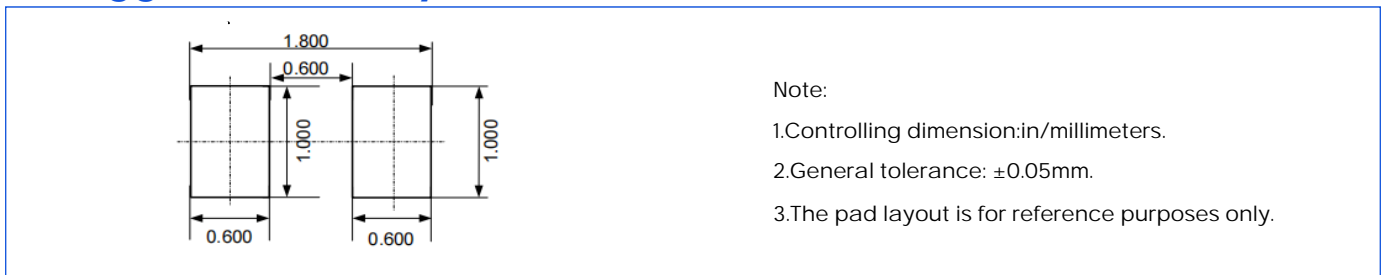


The curve above is for reference only.

## 10. Outline Drawing



## 11. Suggested Pad Layout



## 12. PACKAGE SPECIFICATIONS

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (pcs)	Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
DFN1610-2L	7'	178	10000	210×210×210	150,000	440×440×230	600,000

## 13.Important Notice and Disclaimer

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