



DFN0603 ESD Protection Diode

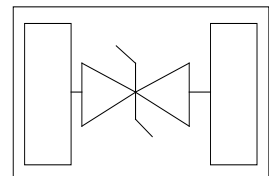


Features

- Peak Power Dissipation –70W (8 x 20 us Waveform)
- Stand-off Voltage: 3.3V
- Low capacitance for high-speed interfaces
- Protects I/O Port
- Low Clamping Voltage
- Low Leakage
- Meets MSL 1 Requirements
- ROHS compliant



DFN0603 Package



Main applications

- High Speed Line : USB1.0/2.0,VGA
- Serial and Parallel Ports
- Notebooks, Desktops, Servers
- Projection TV
- Cellular handsets and accessories
- Portable instrumentation
- Peripherals

Protection solution to meet

- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)

Ordering Information

Device	Marking	Package	Qty per Reel	Reel Size
YSESD3V3DN02B1LA	T	DFN0603	15,000pcs	7 Inch

DEVICE CHARACTERISTICS

YSESD3V3DN02B1LA

Maximum ratings (Tamb=25°C Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20µs waveform)	PPp	70	Watts
Peak Pulse Current(tp=8/20µs waveform)	IPP	7	A
ESD Rating per IEC61000-4-2:	Contact	30	KV
	Air	30	
Lead Soldering Temperature	TL	260 (10 sec.)	°C
Operating Temperature Range	TJ	-55 ~ 150	°C
Storage Temperature Range	TSTG	-55 ~ 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

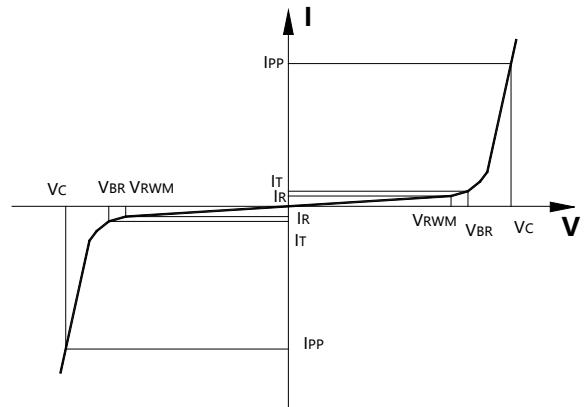
*Other voltages may be available upon request.

1. Non-repetitive current pulse, per Figure 1.

Electrical characteristics (Tamb=25°C Unless Otherwise Specified)

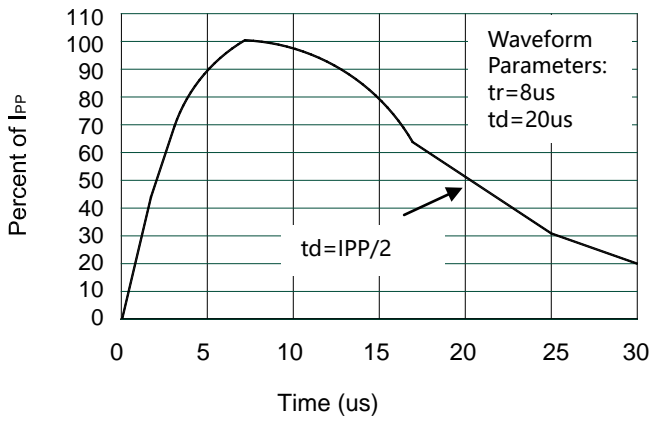
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
VRWM	Reverse Working Voltage				3.3	V
VBR	Breakdown Voltage	IT = 1mA,	3.8			V
IR	Reverse Leakage Current	VRWM = 3.3V,		0.1	1	uA
VC	Clamping Voltage	IPP = 1A, tp =8/20µs,			7.6	V
		IPP = 7A, tp =8/20µs,			9	V
CJ	Junction Capacitance	VR = 0V, f = 1MHz,		13		pF

Symbol	Parameter
VRWM	Working Peak Reverse Voltage
VBR	Breakdown Voltage @ IT
VC	Clamping Voltage @ IPP
IT	Test Current
IRM	Leakage current at VRWM
IPP	Peak pulse current
CO	Off-state Capacitance
CJ	Junction Capacitance

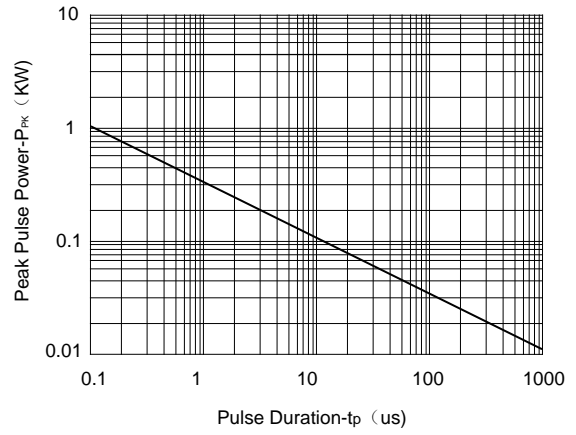


DEVICE CHARACTERISTICS

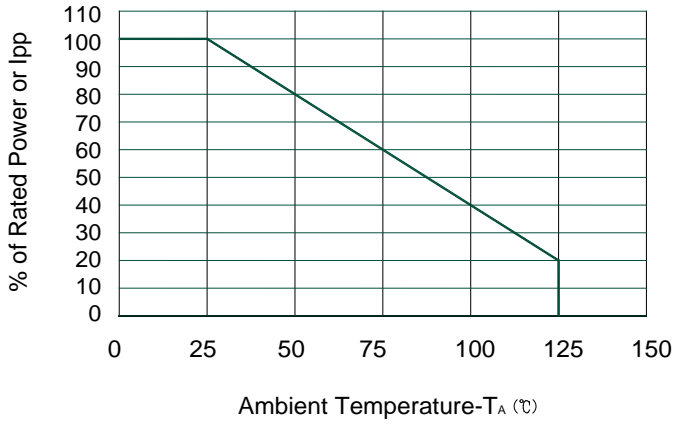
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Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve

PACKAGE OUTLINE & DIMENSIONS

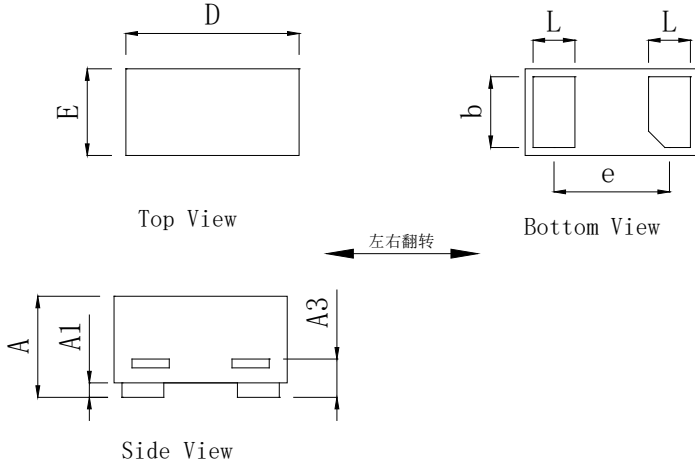
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DFN0603

Mechanical Data

Case: DFN0603

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	0.230	0.330
A1	0.000	0.050
A3	0.102REF	
D	0.550	0.650
E	0.250	0.350
b	0.215	0.275
L	0.115	0.175
e	0.40BSC	

Recommended Pad outline

