

Features

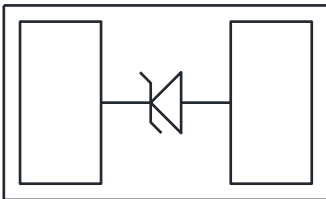
- 100W peak pulse power (8/20 μ s)
- Operating voltage: 3.3V
- Ultra low leakage: nA level
- Ultra low capacitance: 0.6pF (typ.)
- Low clamping voltage
- IEC61000-4-2 (ESD) \pm 25kV (air), \pm 20kV (contact)
- IEC61000-4-5 (Lightning) 6A (8/20 μ s)
- RoHS Compliant



Mechanical Characteristics

- Case: Molded plastic, DFN0603-2
- Case Material: "Green" Molding Compound
- Moisture Sensitivity: Level 3 per J-STD-020

Pin Configuration



Marking Code



Device Marking Code
= 30

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20 μ s waveform)	P _{PPM}	100	W
Peak Pulse Current (tp=8/20 μ s waveform)	I _{PP}	6	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	\pm 25 \pm 20	kV
Operating Temperature Range	T _J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T _{STG}	-55 to +150	$^\circ\text{C}$

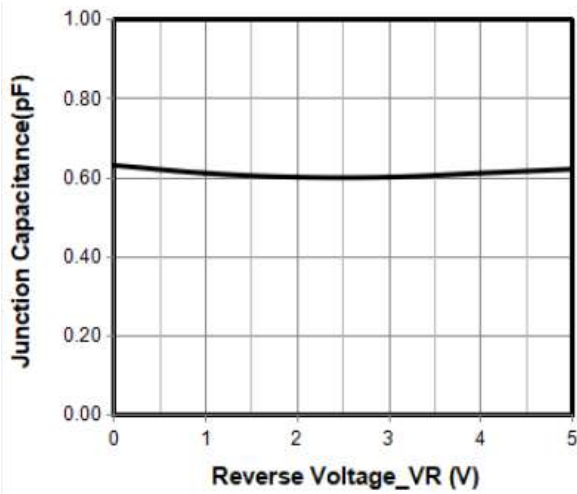


Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

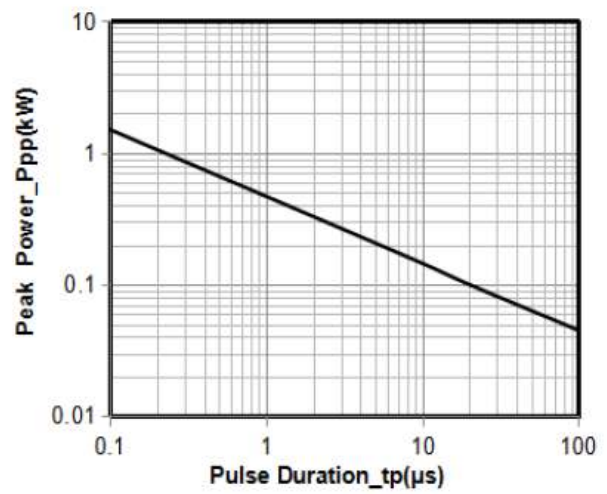
Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage		V_{RWM}			3.3	V
Breakdown Voltage	$I_T = 1\text{mA}$	V_{BR}	4.2			V
Reverse Leakage Current	$V_{RWM} = 3.3\text{V}$	I_R			0.2	μA
Clamping Voltage	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)	V_C			9	V
Clamping Voltage	$I_{PP} = 6\text{A}$ (8 x 20 μs pulse)	V_C			16	V
Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		0.6		pF
TLP Clamping Voltage	$I_{PP} = 8\text{A}$, IEC61000-4-2 Level 2 equivalent ($\pm 4\text{kV}$ Contact, $\pm 8\text{kV}$ Air) Pin1 to Pin2	$V_{CTL P}$			14	V
	$I_{PP} = 16\text{A}$, IEC61000-4-2 Level 4 equivalent ($\pm 8\text{kV}$ Contact, $\pm 16\text{kV}$ Air) Pin1 to Pin2				18	V



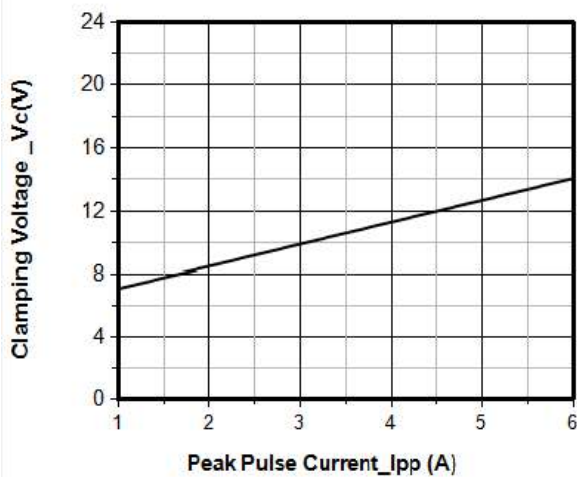
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)



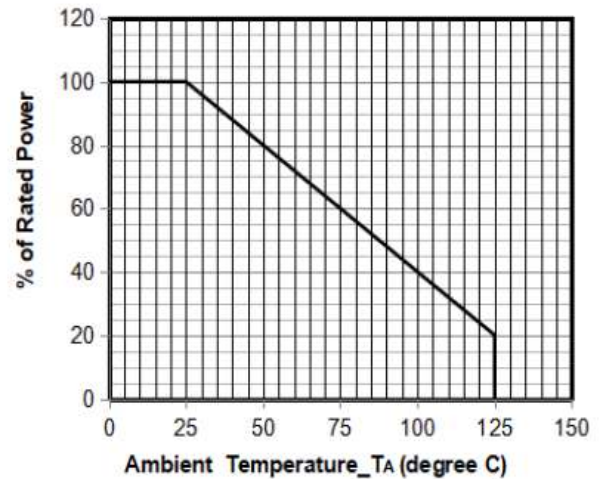
Junction Capacitance vs. Reverse Voltage



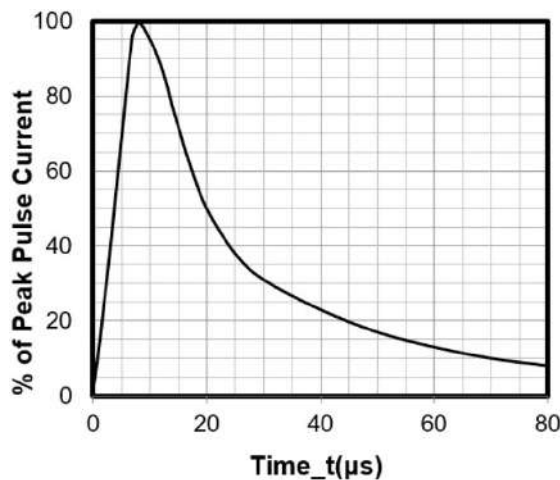
Peak Pulse Power vs. Pulse Time



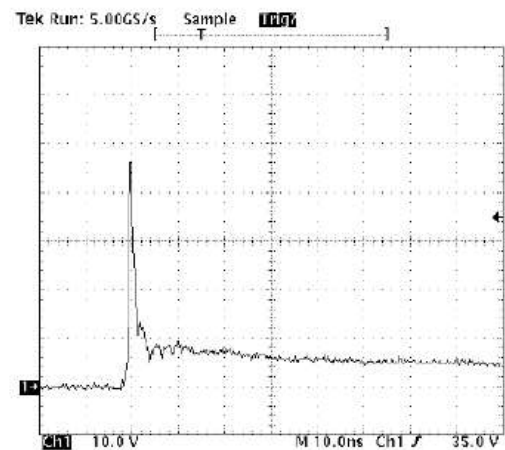
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20μs Pulse Waveform



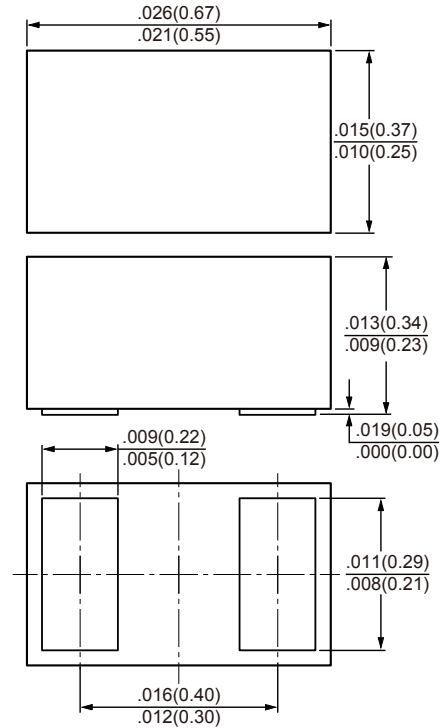
Note: Data is taken with a 10x attenuator

ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

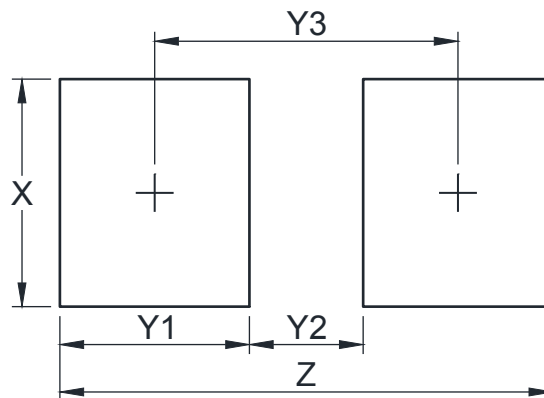
Structures and Dimensions

DFN0603-2



Dimensions in inches and (millimeters)

Recommended Soldering Pad Dimensions



Package Type	X	Y1	Y2	Y3	Z
DFN1006-2	0.30	0.25	0.15	0.40	0.65

Unit: mm

Quantity

Part Number	Package	Reel Size (inch)	Reel (Kpcs)
YEUD0623R06AU	DFN0603-2	7	10