

Features

- ◆ Ultra low capacitance: 1.5pF(Max)
- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 5.5V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 20\text{kV}$
 - Contact discharge: $\pm 15\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ ROHS Compliant

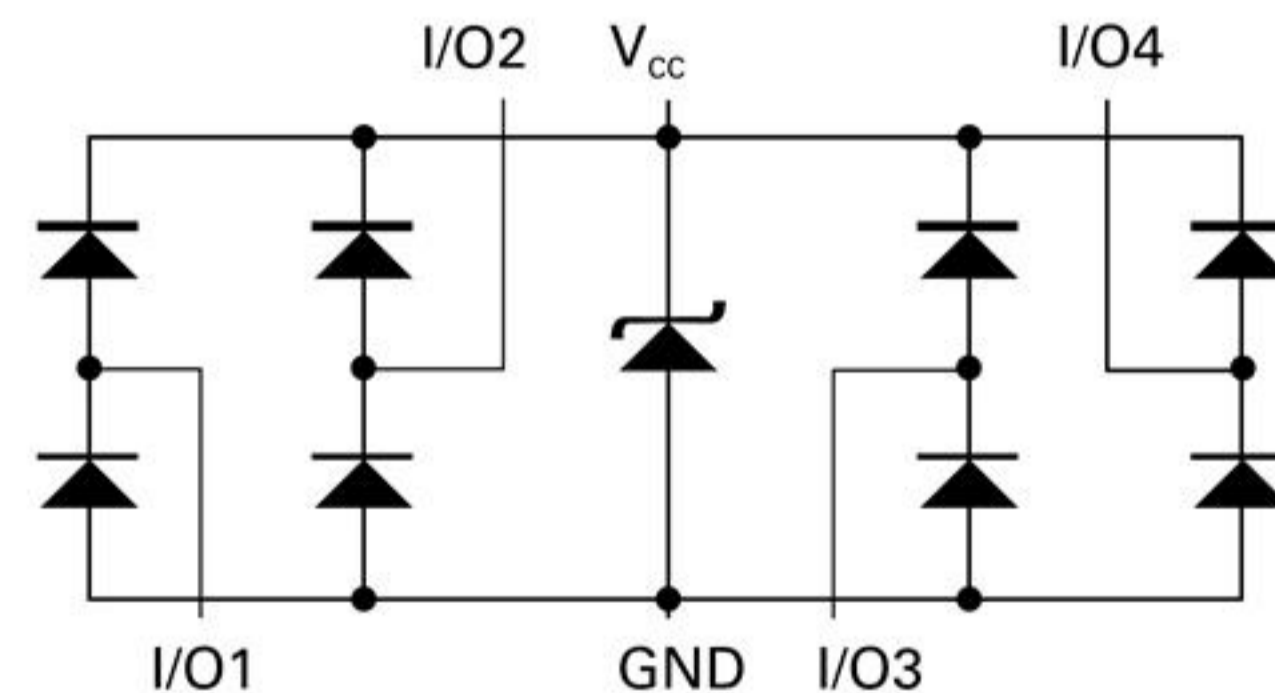
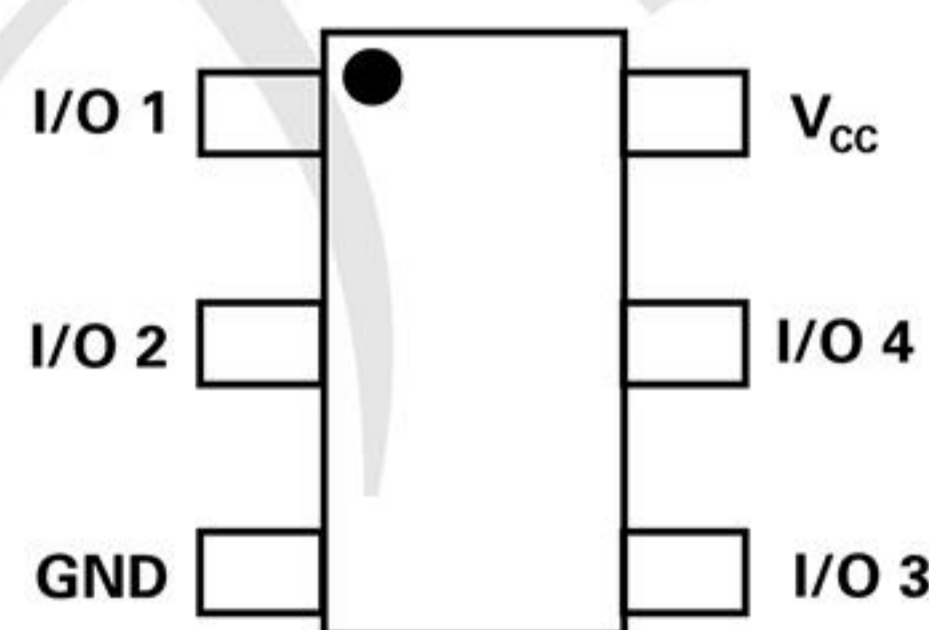
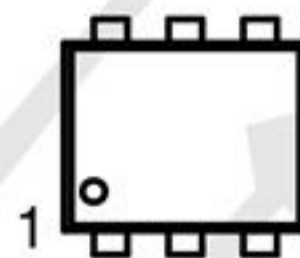
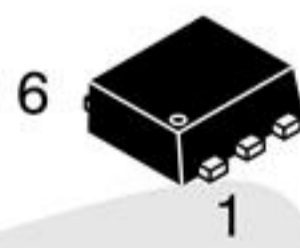
Mechanical Characteristics

- ◆ Package: SOT563
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: "Green" Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J-STD-020

Applications

- ◆ USB 2.0 and USB 3.0 Ports
- ◆ USB OTG
- ◆ Digital video interface(DVI)
- ◆ Monitor and Flat Panel Displays
- ◆ PCI Express and Serial SATA Ports
- ◆ Gigabit Ethernet

Dimensions and Pin Configuration



Marking:2CR

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power pin voltage	V _{CC}	7	V
ESD Protection (per IEC 61000-4-2) Air Discharge Contact Discharge	WM	20	kV
	BR	15	

Parameter	Symbol	Min.	Nom.	Max.	Unit
Operating Temperature	T _J	-55	+25	+150	°C
Storage Temperature	T _{STG}	-55	+25	+150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit
Working Peak Reverse Voltage	V _{WM}			5.5	V
Breakdown Voltage @ 1 mA	V _{BR}	6.5	8	11	V
Leakage Current @ V _{WM}	I _D			0.1	μA
Capacitance	C _{j(SD)}			1.5	pF
Forward Surge Rating (1/20 s @ 25 °C, I _F = 10 mA)	V _F	0.6		1.2	V
Clamping Voltage (per IEC 61000-4-5) 8/20 μs)	@ I _{PP} = 1 A			12	V
	@ I _{PP} = 5 A			15	

Characteristic Curves

Fig1. 8/20 μ s Pulse Waveform

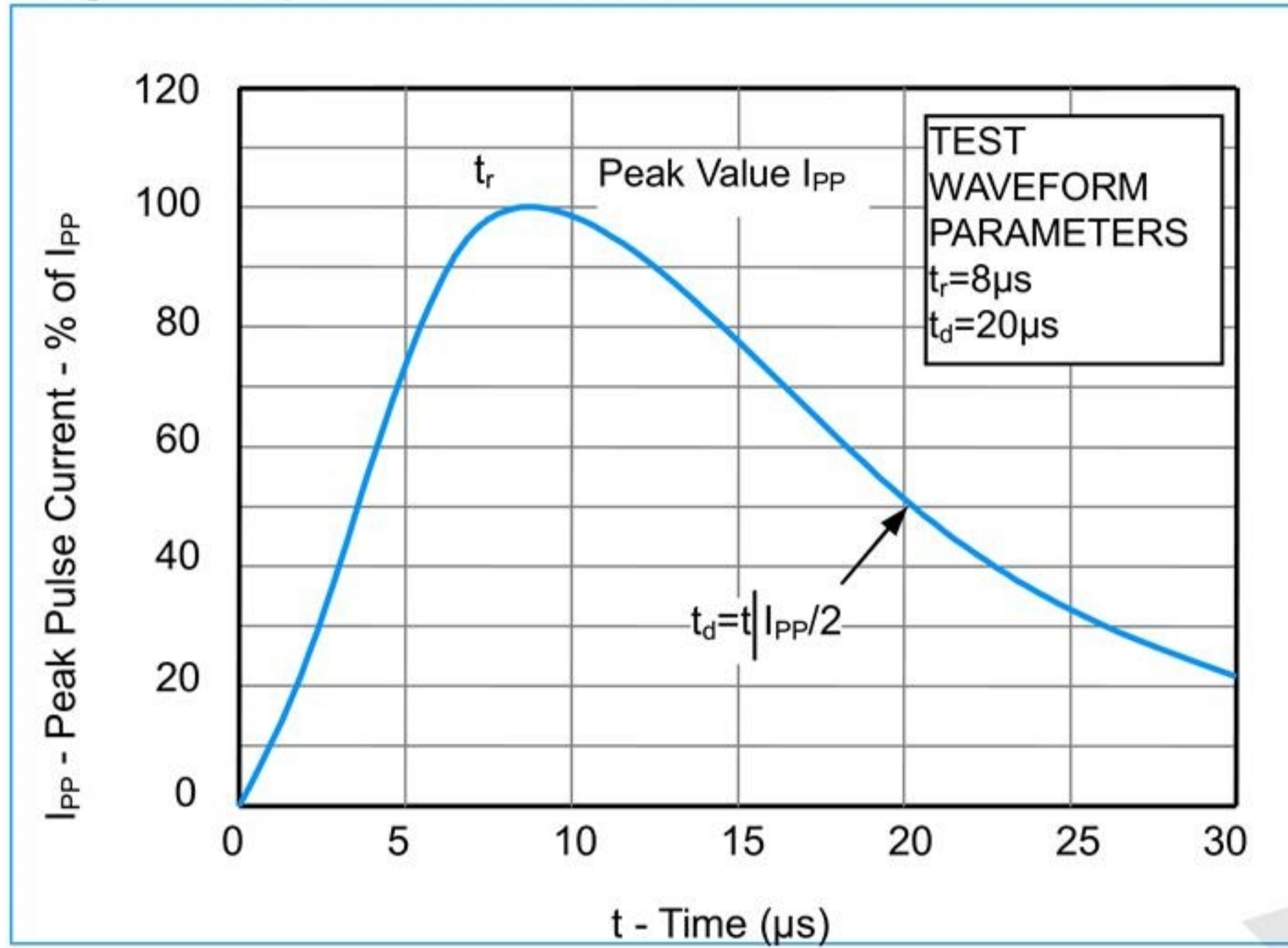


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

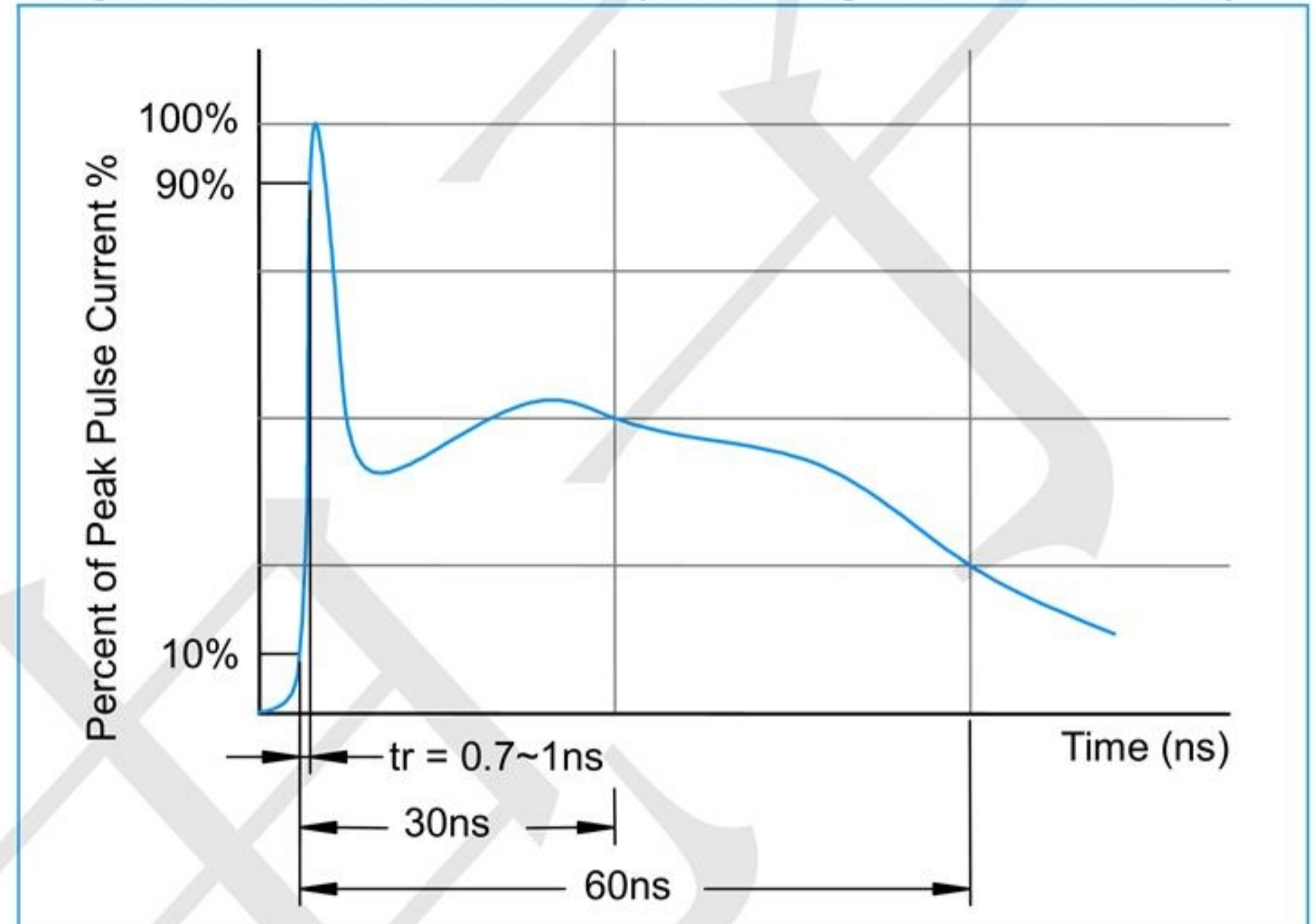
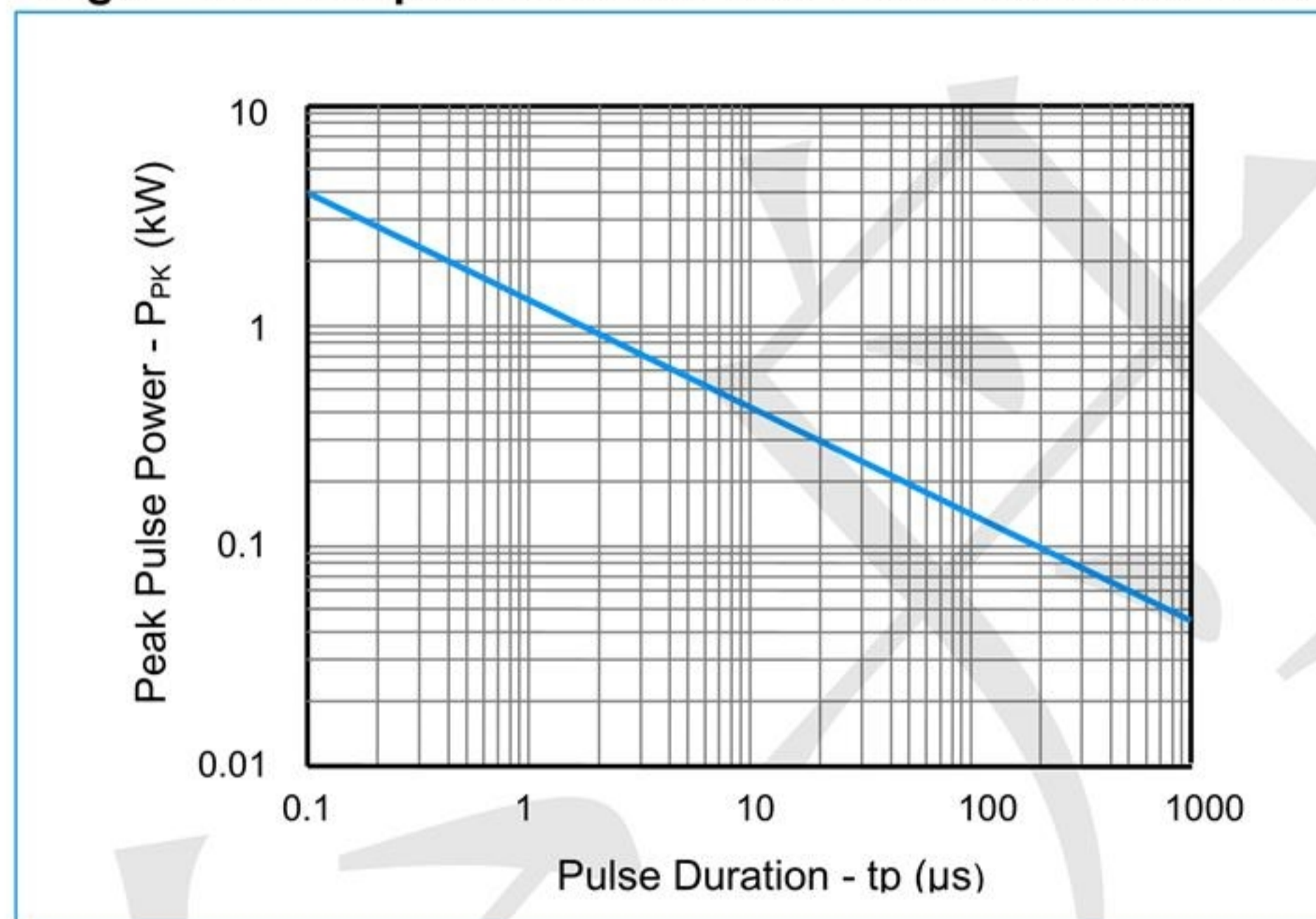
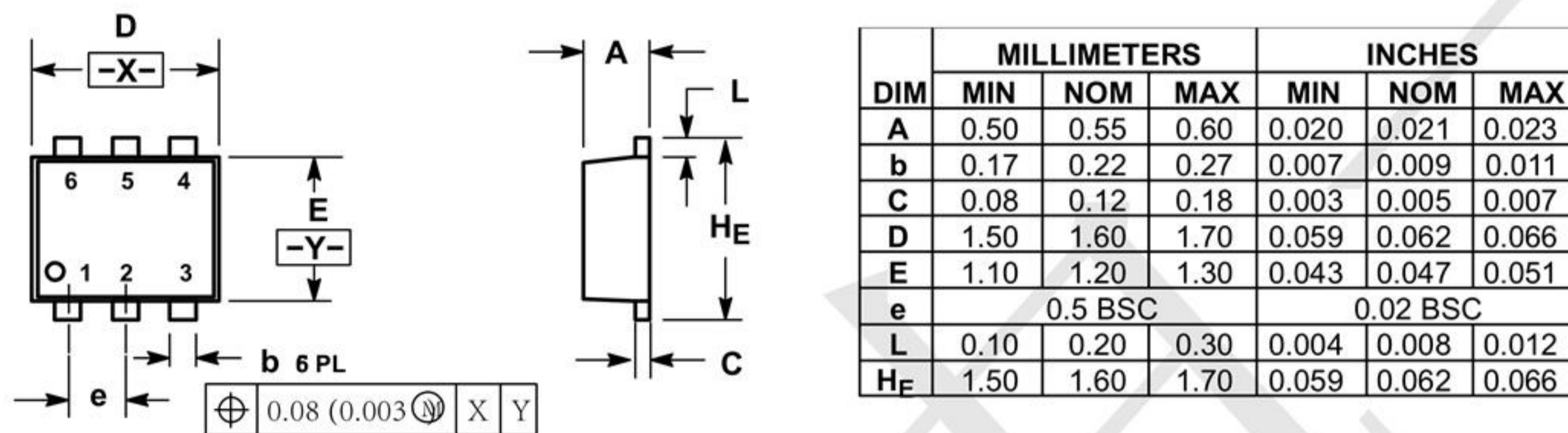


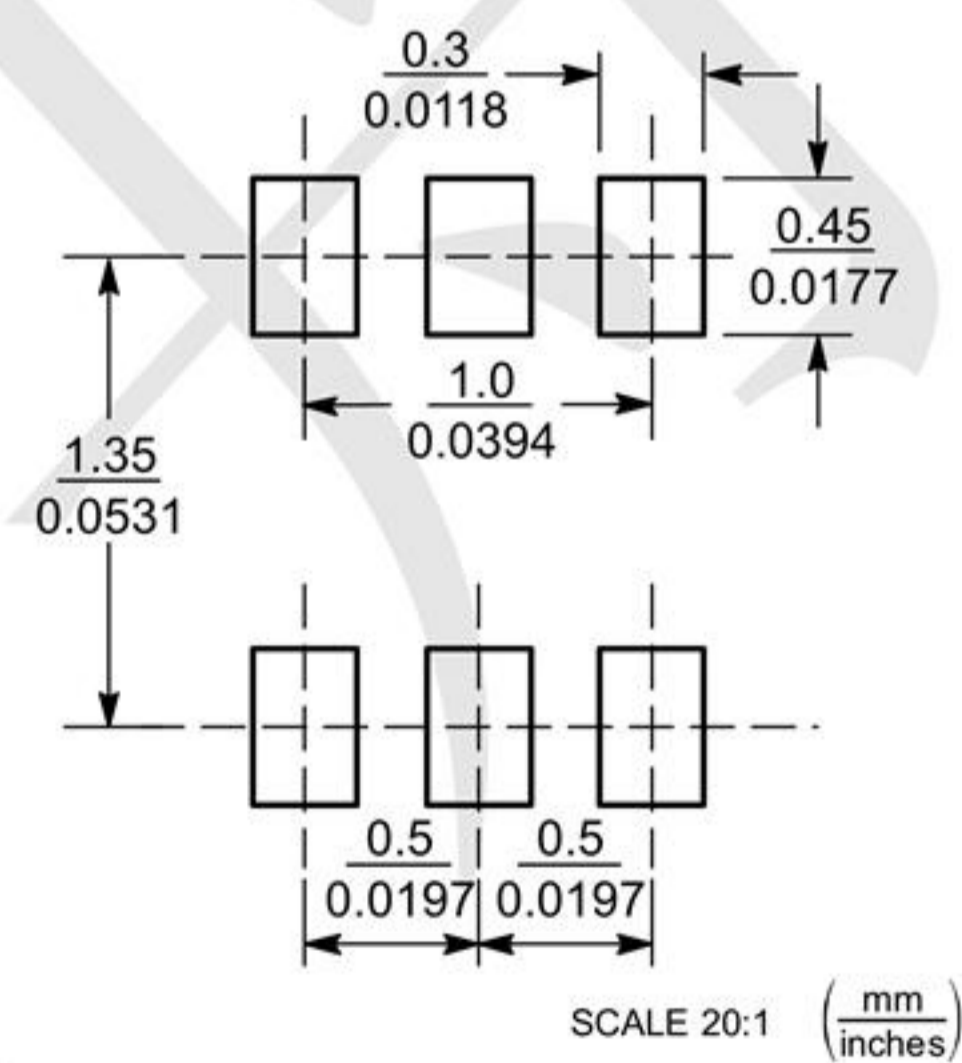
Fig3. Non - Repetitive Peak Pulse Power vs. Pulse Time



Outline Drawing - SOT563



Land Pattern -SOT563



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