

Features

- ◆ Ultra low capacitance: 1 pF(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: ±20kV
Contact discharge: ±15kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ ROHS Compliant

Mechanical Characteristics

- ◆ Package: SOT363
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: “Green” Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J-STD-020

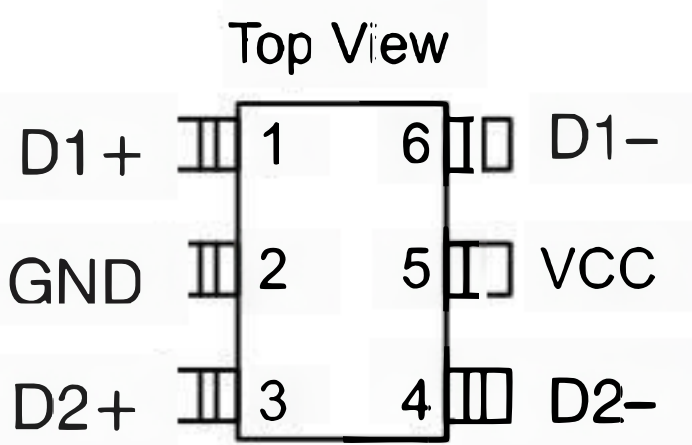
Applications

- ◆ 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
- ◆ IEEE 1394 firewire ports
- ◆ Consumer products (STB, DVD, DSC, DVC.)

Ordering Information

Part Number	Qty per Reel	Reel Size
TPD4S009DCKR	3000	7"

Dimensions and Pin Configuration



Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
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 (TA=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		9	V
Leakage Current @ V_{WM}	I_D			0.1	μA
Capacitance	$C_{j(SD)}$			1	pF
Forward Surge Rating (1/20 s@ 25 °C, $I_F = 10$ mA)	V_F	0.6		9	V
Clamping Voltage (per IEC 61000-4-5) 8/20 μs)	@ $I_{PP} = 1$ A	V_C		12	V
	@ $I_{PP} = 5$ A			15	

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

Fig1. 8/20 μs Pulse Waveform

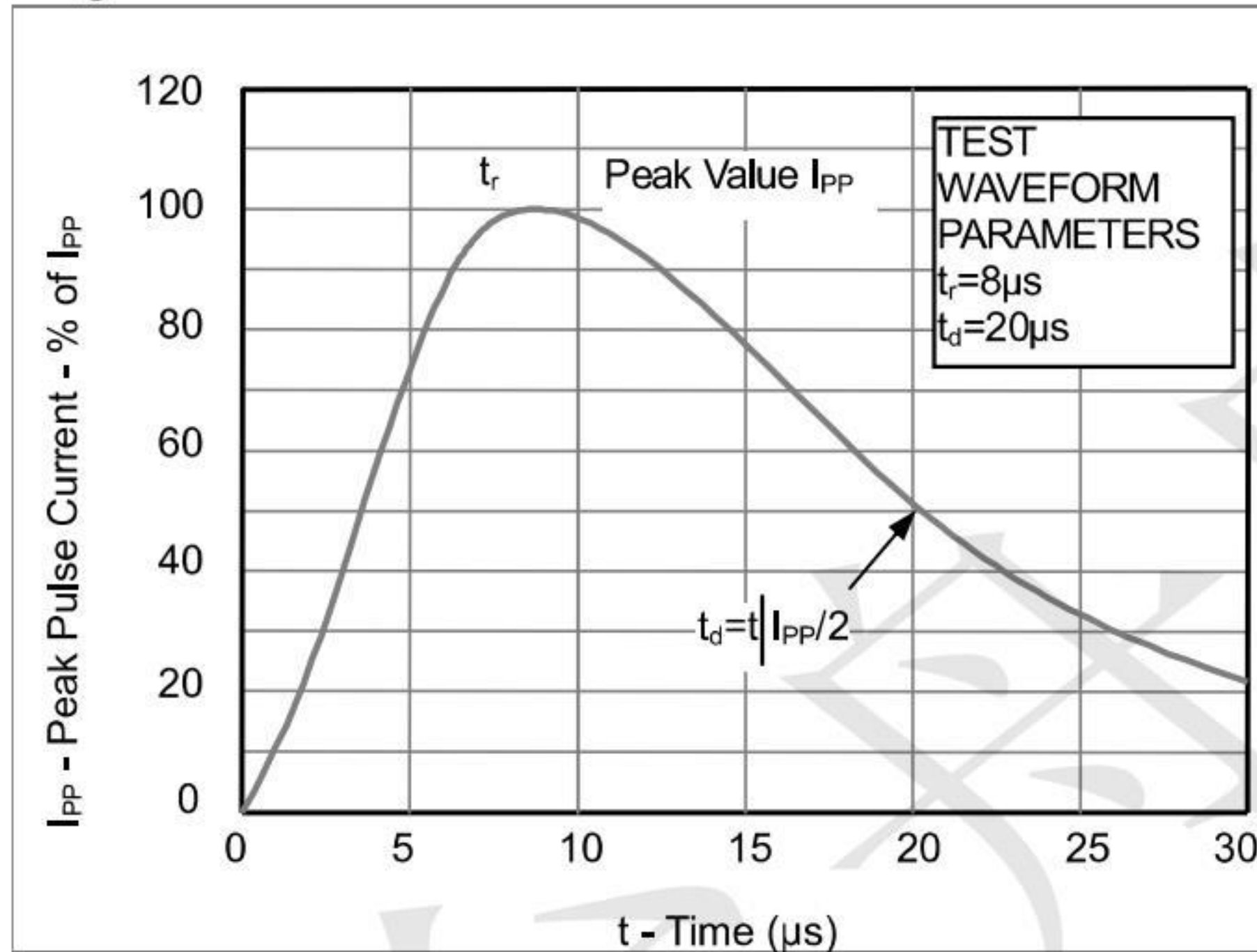


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

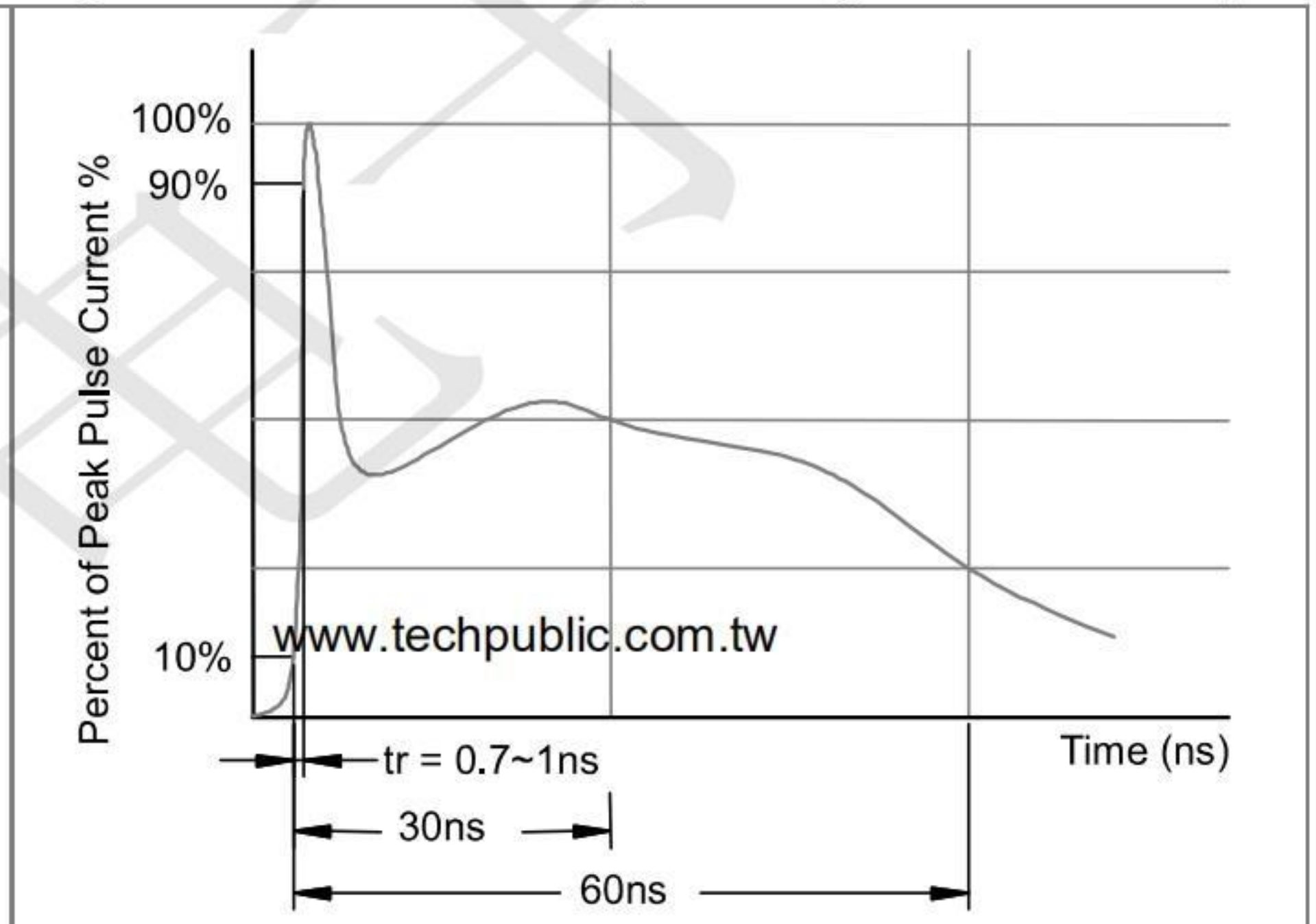
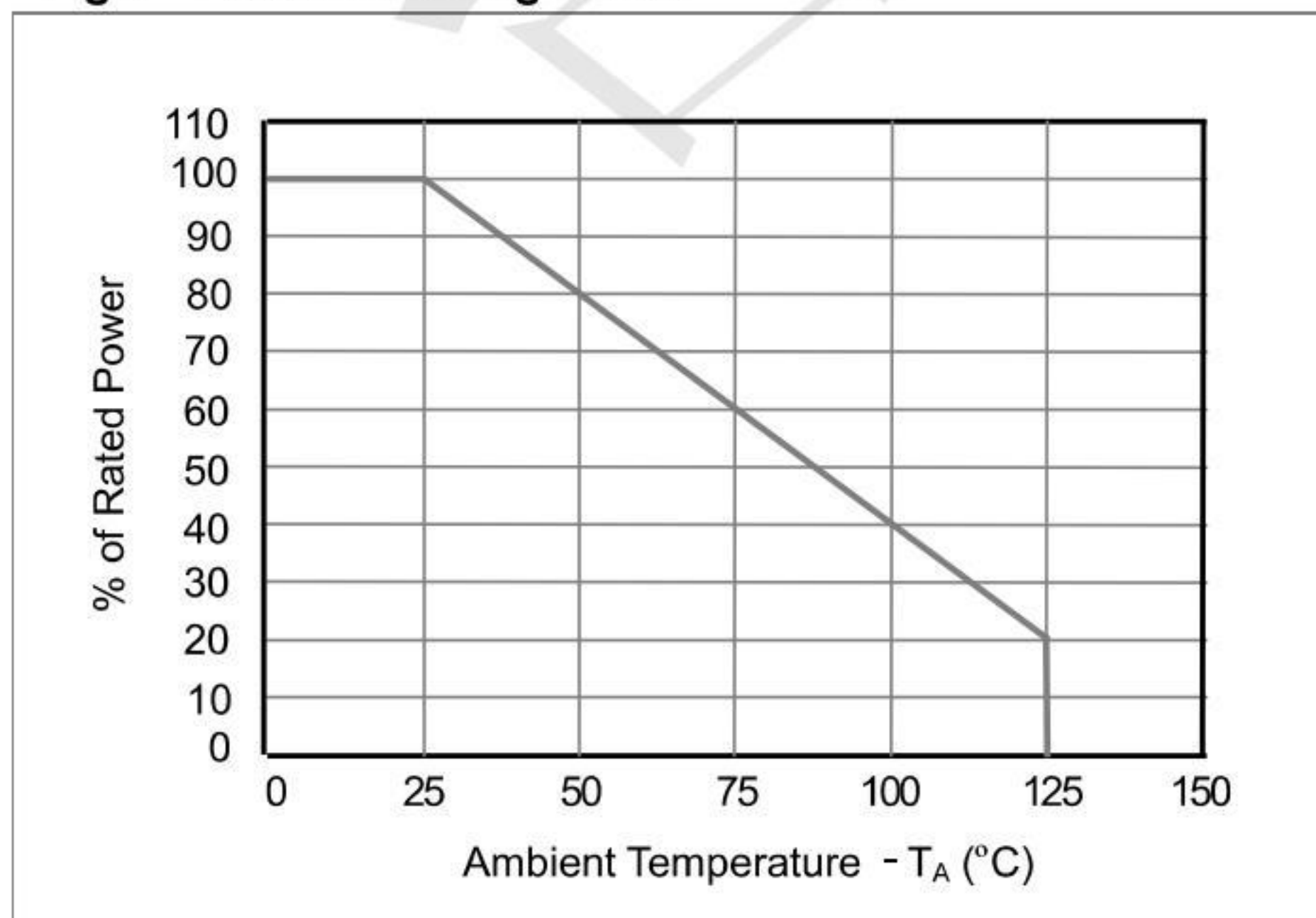
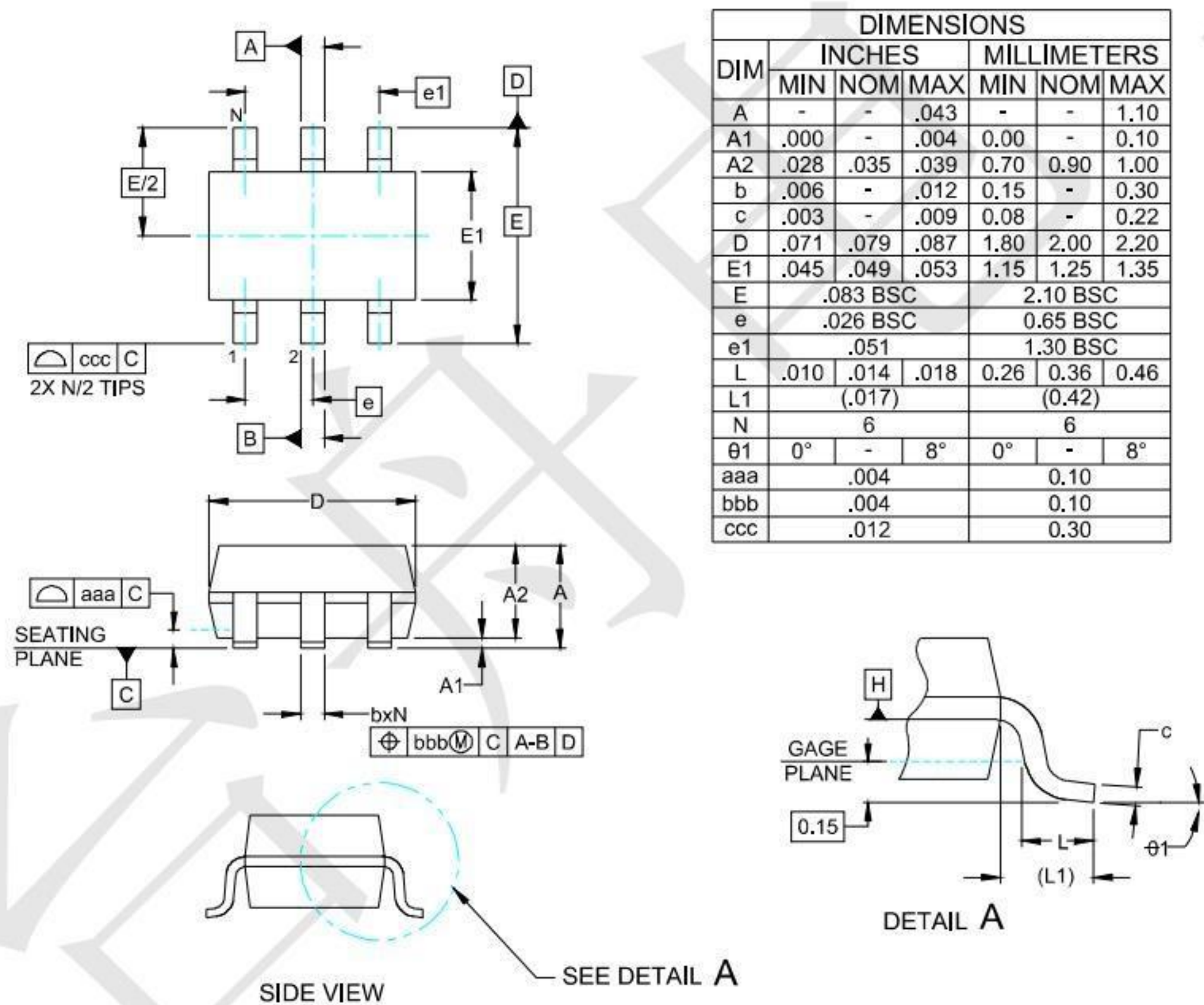


Fig3. Power Derating Curve



Outline Drawing - SOT-363(2.0X2.1)



Land Pattern - SOT-363

