

Features

- Ultra low leakage: nA level
- Operating voltage: 12V
- Ultra low capacitance 0.8pF (typ)
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 13A (8/20 μs)
- RoHS Compliant

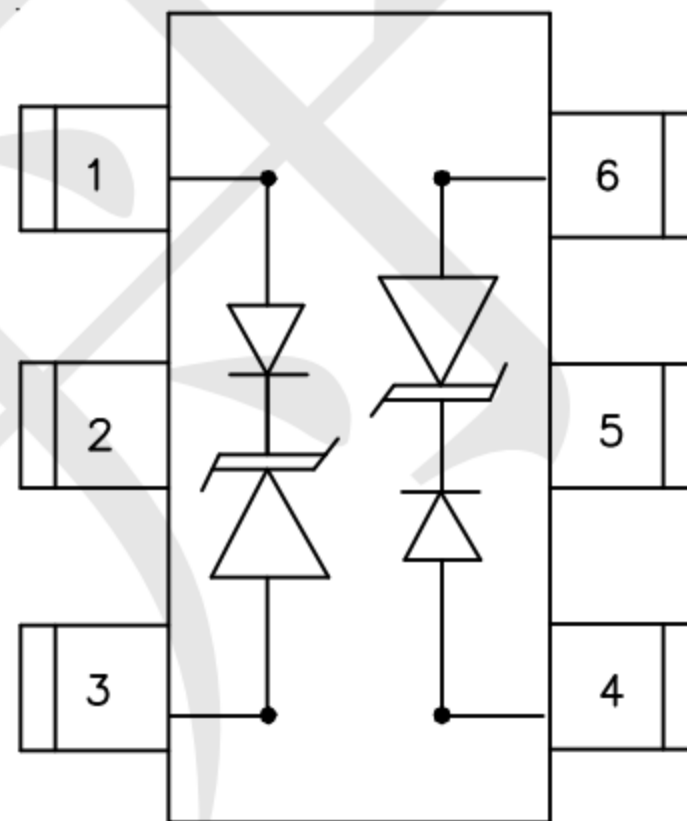
Mechanical Characteristics

- Package: SOT23-6
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J STD 020
- Shipping Qty :3000pcs/7Inch Tape & Reel

Applications

- Ethernet - 10/100 Base T
- Cellular Phones
- Audio & Video Inputs
- FireWire, SCSI & USB Interfaces

Dimensions and Pin Configuration



Marking:224

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	400	W
Peak Pulse Current (8/20μs)	Ipp	13	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±30 ±30	kV
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			12	V	
Breakdown Voltage	VBR	13.8			V	IT = 1mA
Reverse Leakage Current	IR			0.2	uA	VRWM = 12V
Clamping Voltage	VC			25	V	Ipp = 5A (8 x 20μs pulse)
Clamping Voltage	VC			28	V	Ipp = 13A (8 x 20us pulse)
Junction Capacitance	CJ		0.8	1.5	pF	VR = 0V, f = 1MHz (IO to GND)

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

Fig1. 8/20 μs Pulse Waveform

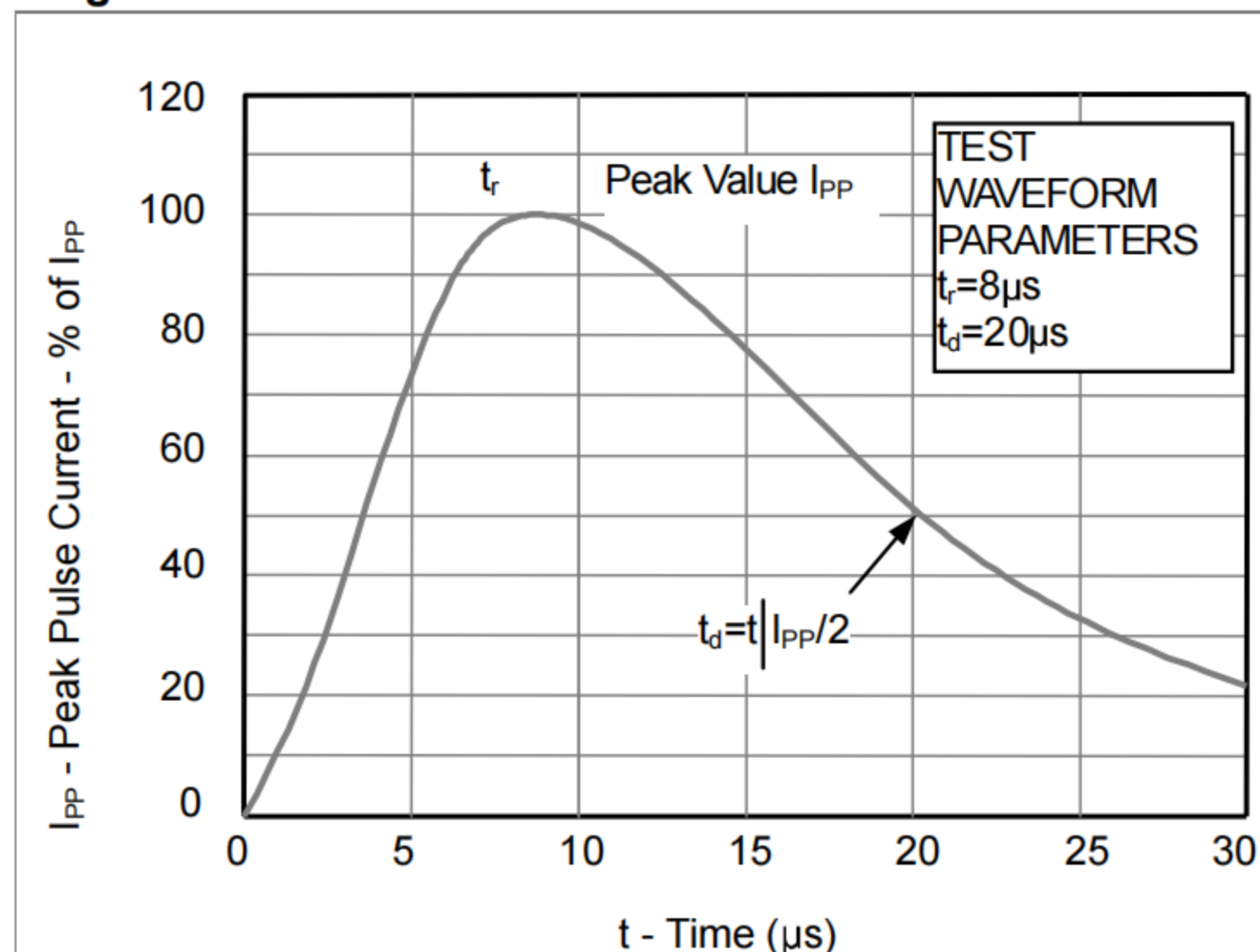


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

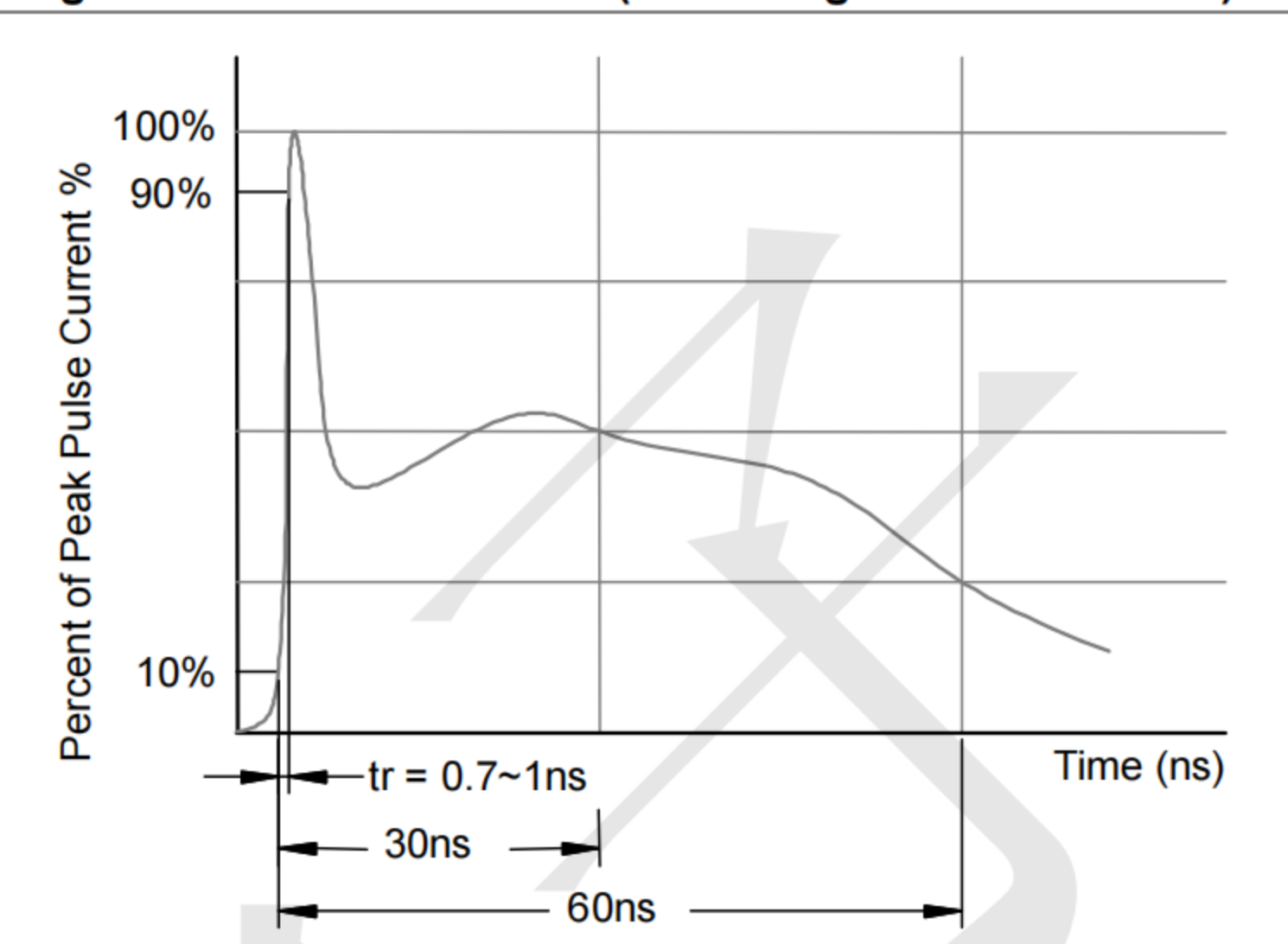
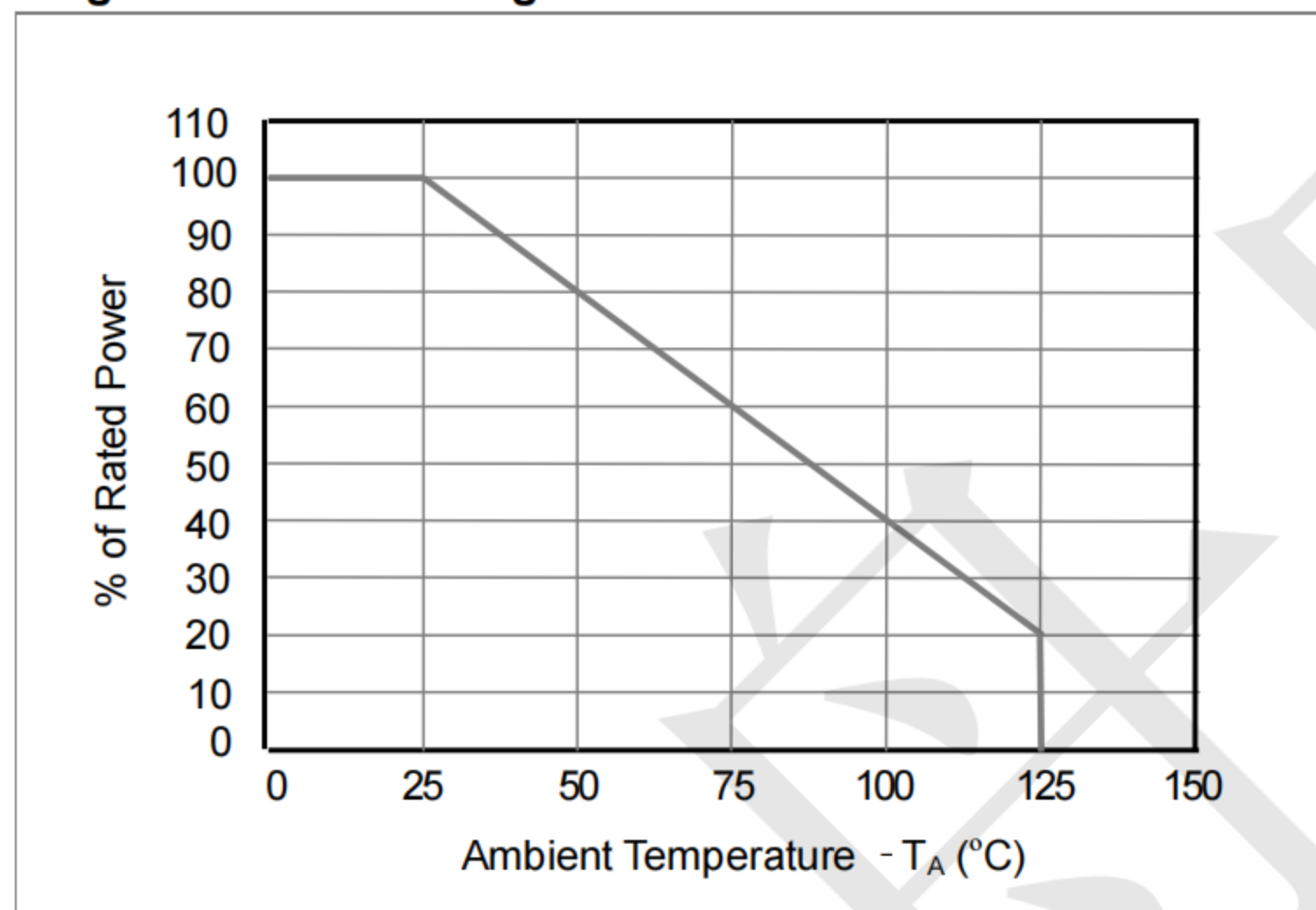
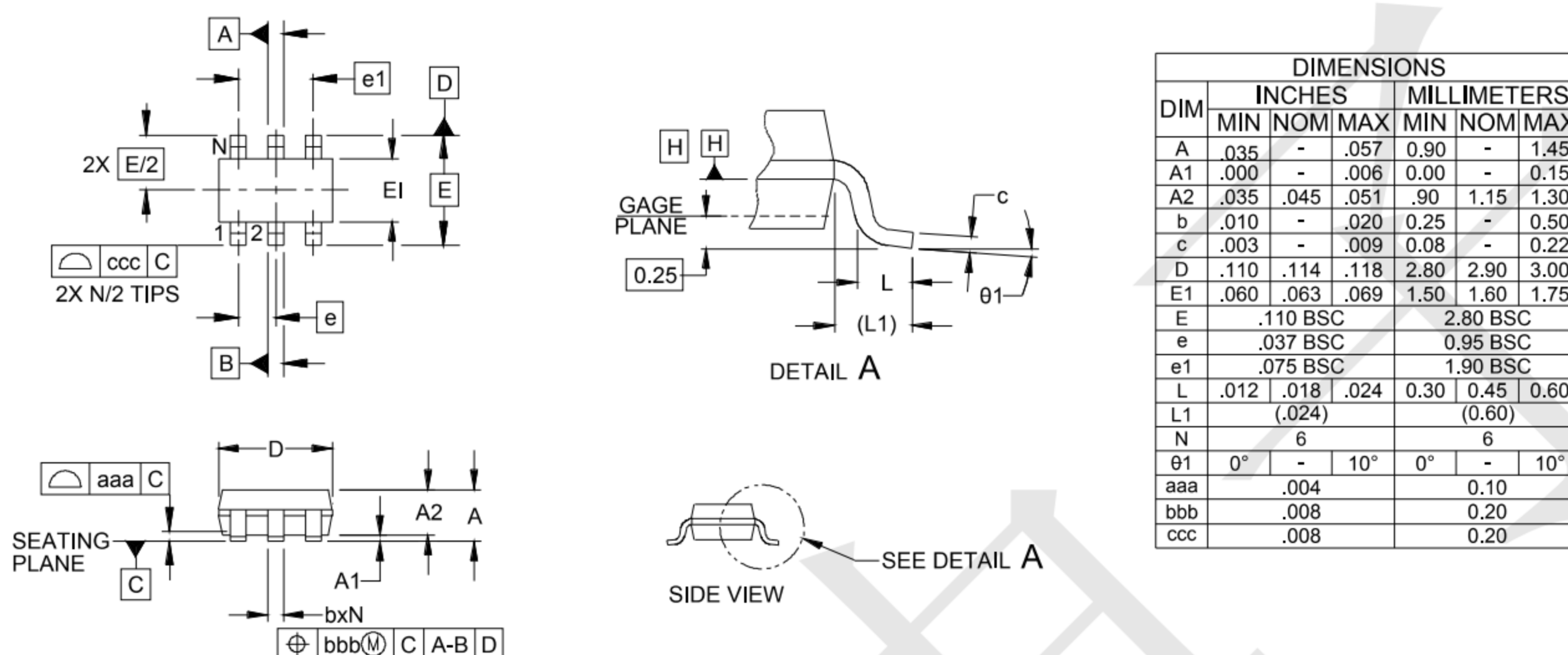


Fig3. Power Derating Curve



Outline Drawing - SOT23-6



Land Pattern - SOT23-6

