

Features

- Ultra low leakage: nA level
- Ultra low operating voltage: 5V
- Ultra low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 25\text{kV}$
Contact discharge: $\pm 15\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 25A (8/20 μs)
- RoHS Compliant

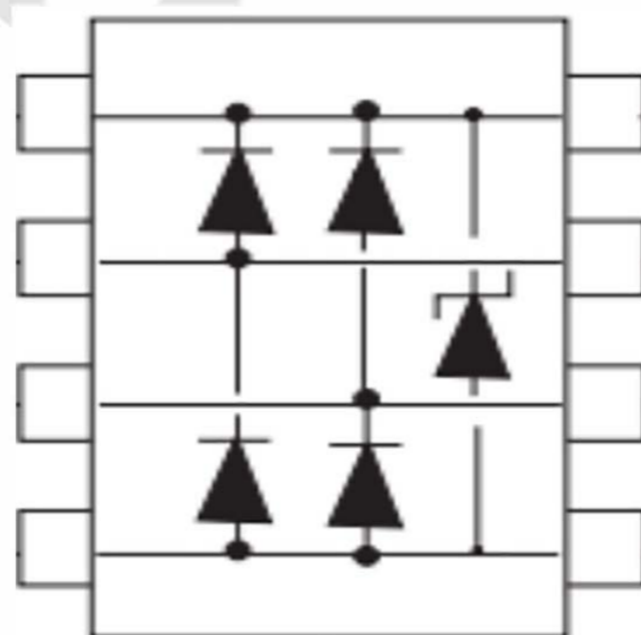
Mechanical Characteristics

- Package: SOP-8
- Lead Finish: NiPdAu
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below

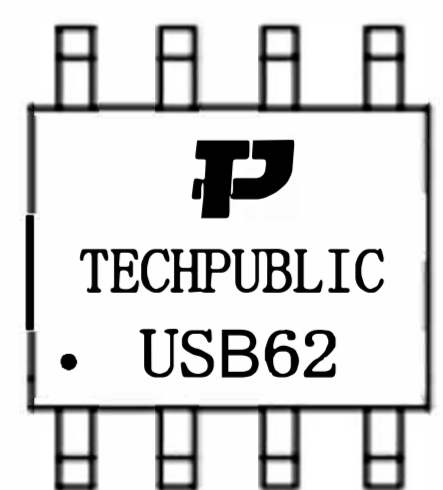
Applications

- RS-423interfaces
- RS-485interfaces
- ISDNequipment
- T1/E1linecards
- HDSL/ASDLinterfaces

Dimensions and Pin Configuration



Marking



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

TECH PUBLIC Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	450	W
Peak Pulse Current (8/20μs)	Ipp	25	A
ESD per IEC 61000-4-2 (Air)	VESD	±25	kV
ESD per IEC 61000-4-2 (Contact)		±15	
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			5	V	
Reverse Breakdown Voltage	Vbr	6			V	IT=1mA
Reverse Leakage Current	IR			2	uA	VRWM = 5.25V
Clamping Voltage	VC			5.5	V	I _{PP} = 1A (8 x 20μs pulse), any I/O to GND
Clamping Voltage	VC			9.5	V	I _{PP} = 10A (8 x 20μs pulse), any I/O to GND
Clamping Voltage	VC			18	V	I _{PP} = 25A (8 x 20μs pulse), any I/O to GND
Junction Capacitance	CJ		3	5.0	pF	VR = 0V, f = 1MHz, any I/O to GND
Junction Capacitance	CJ		2.0		pF	VR = 0V, f = 1MHz, between I/O pins

Typical characteristics ($T_A=25\text{ C}$, unless otherwise noted)

Fig1. 8/20 μs Pulse Waveform

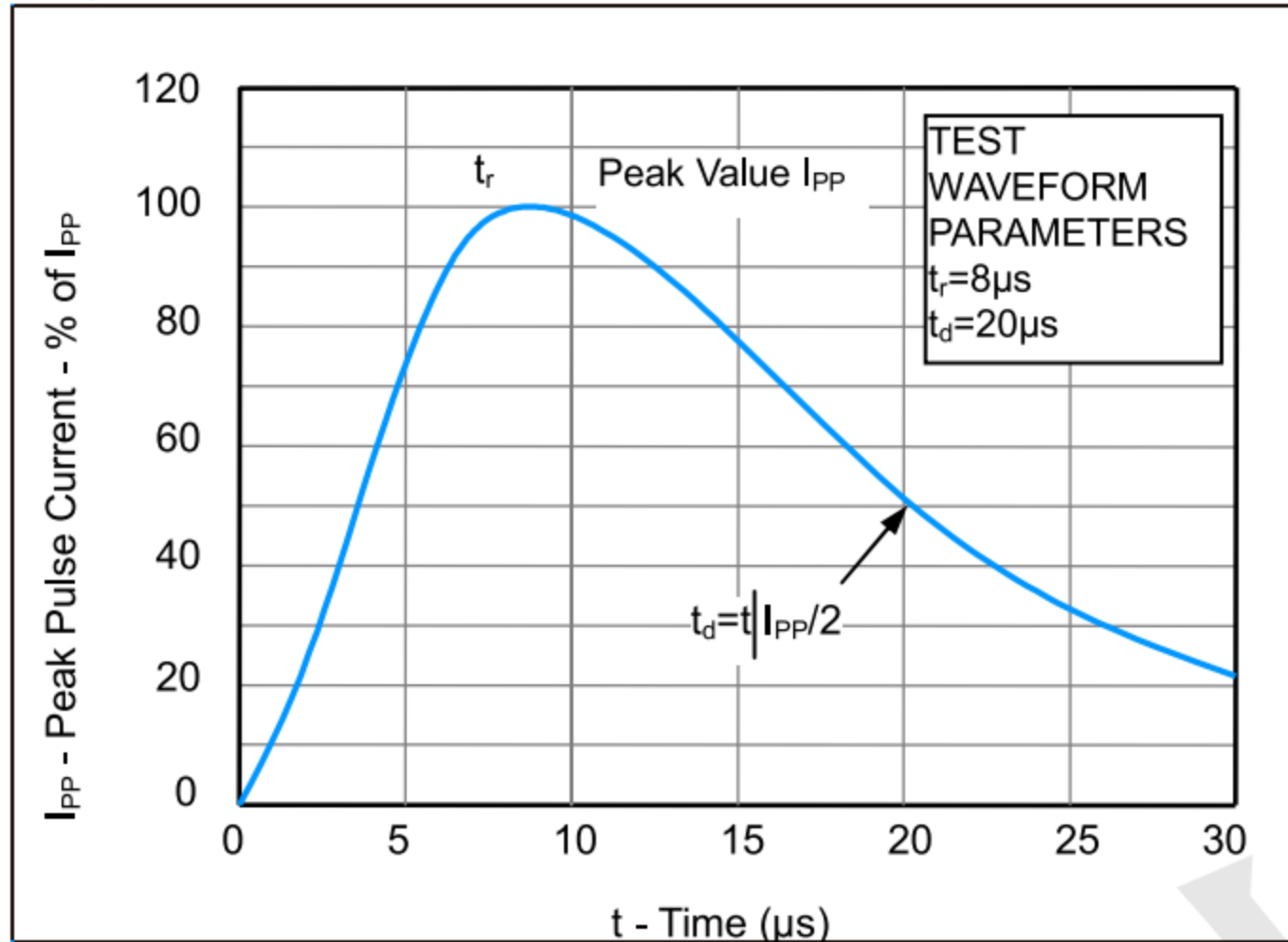


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

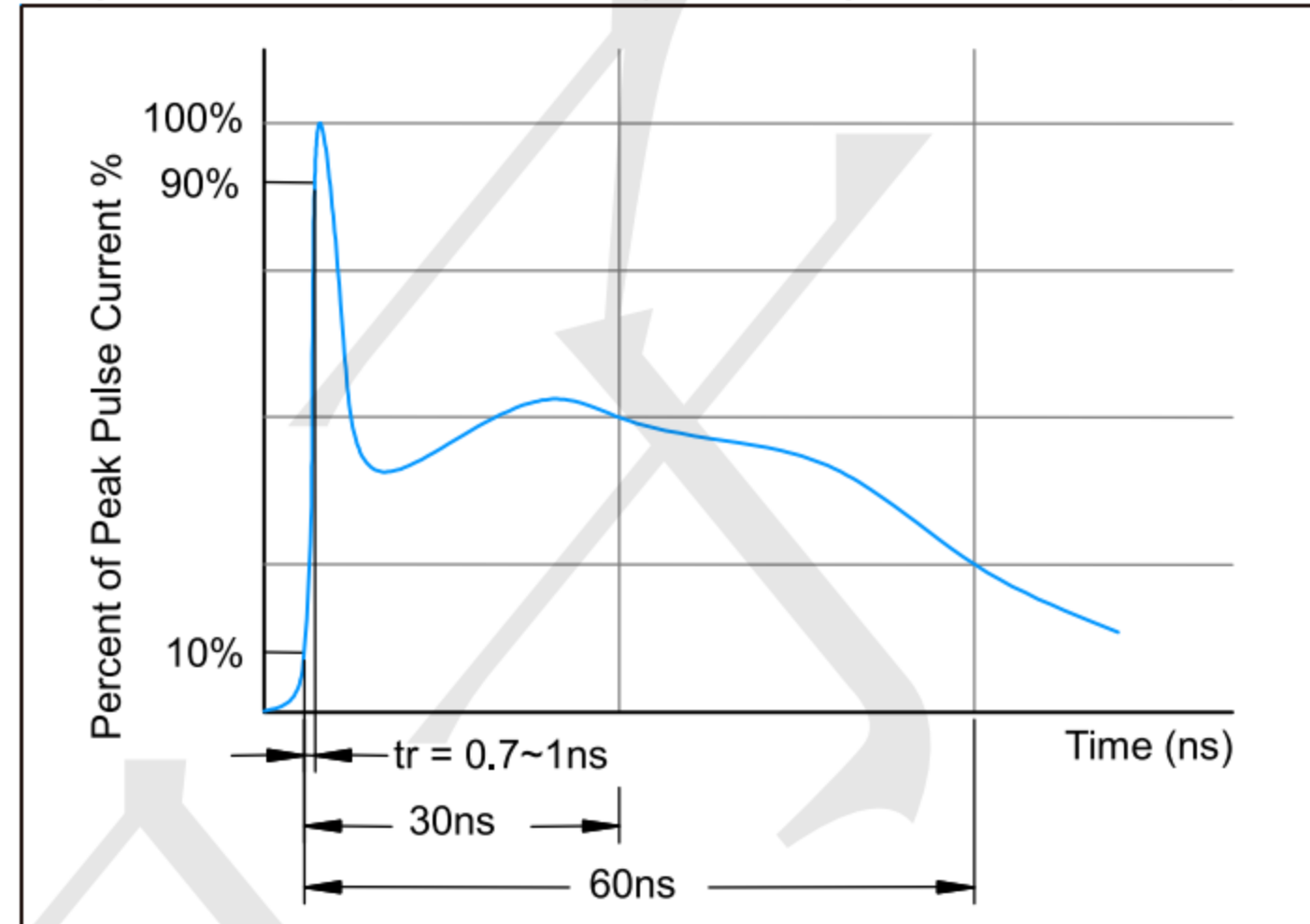
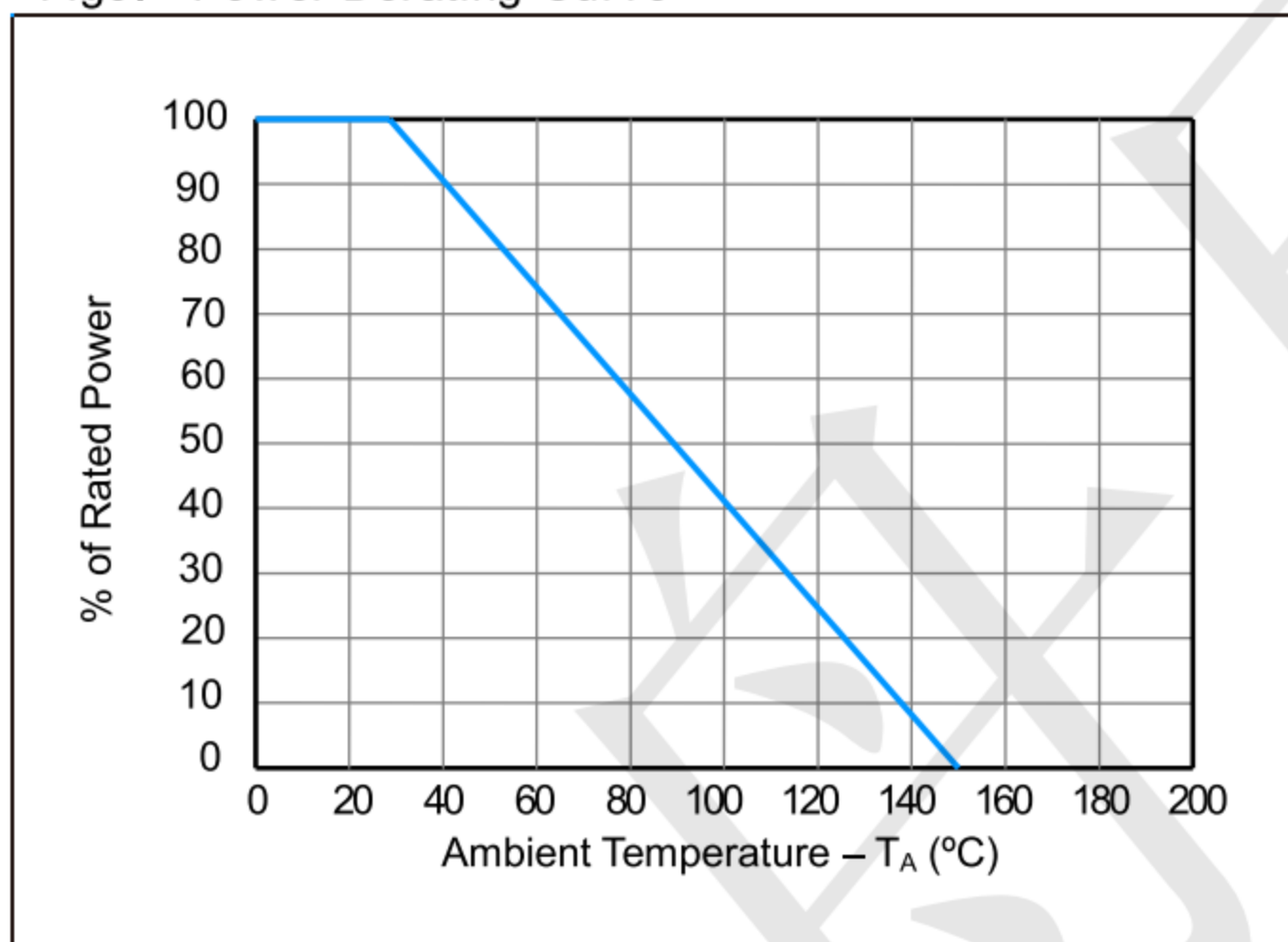
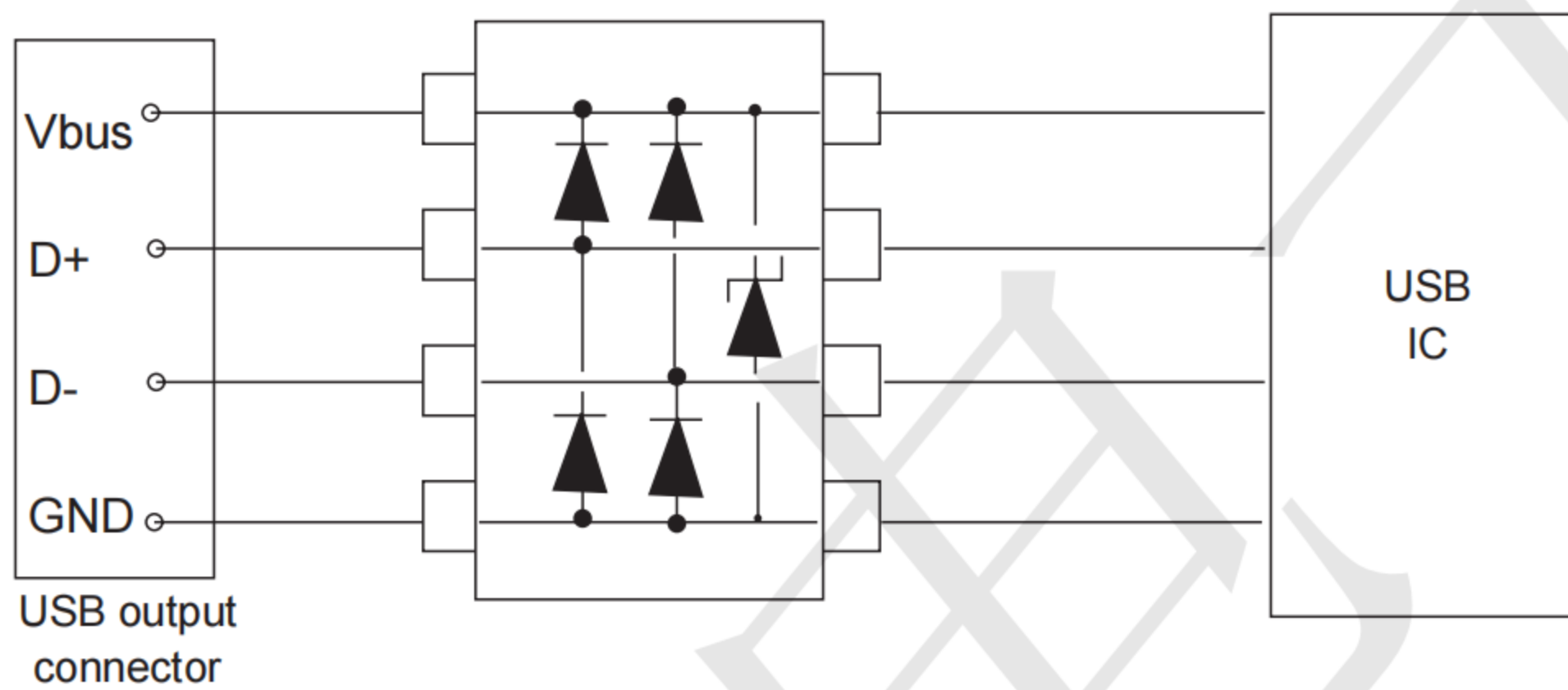


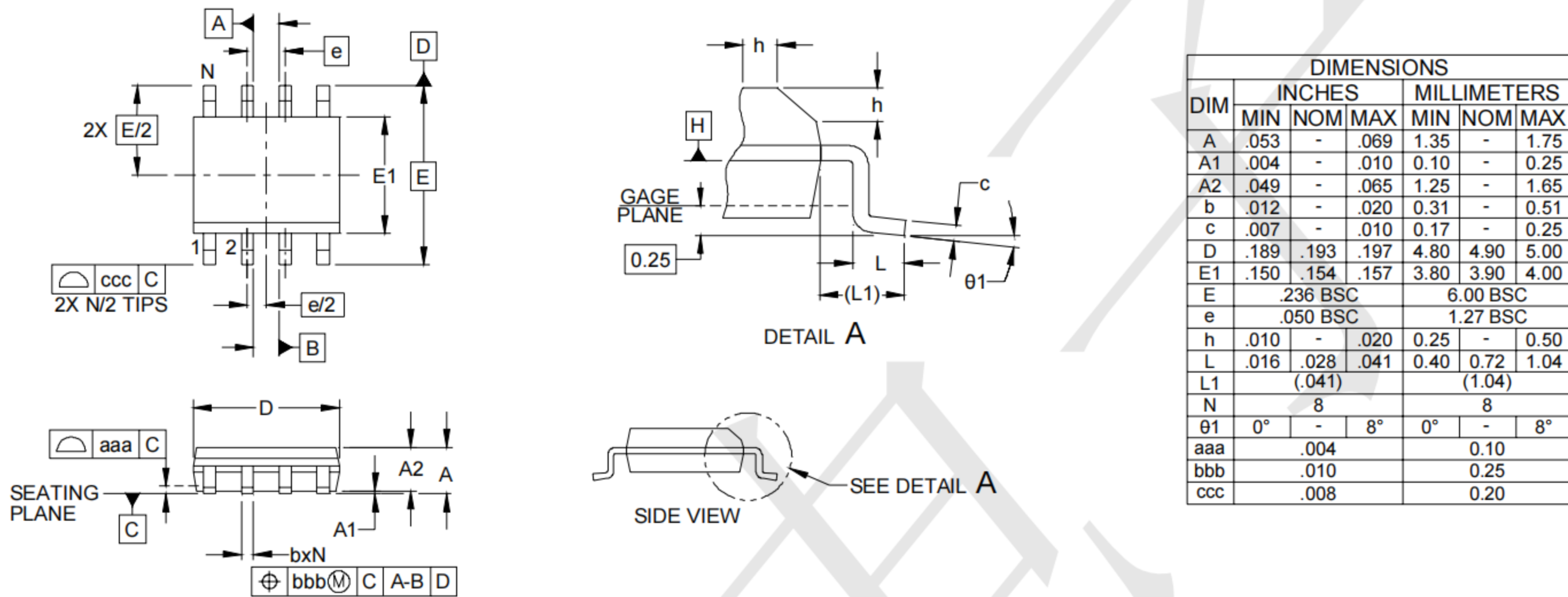
Fig3. Power Derating Curve



recommended configuration for USB port protection.



SOP-8 Package Outline Drawing



Suggested Land Pattern

