

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: $\pm 15\text{kV}$
 - IEC61000-4-5 (Lightning) 9A (8/20 μs)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

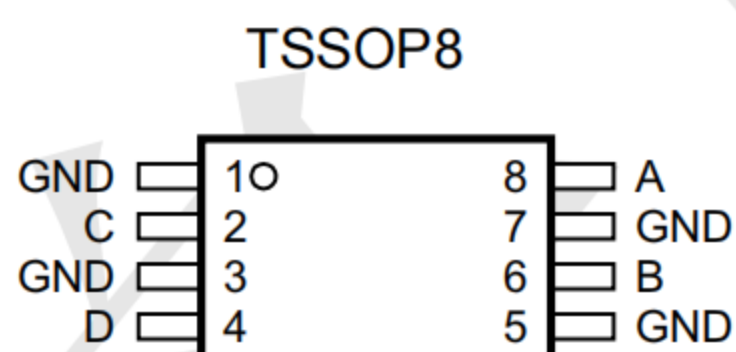
Mechanical Characteristics

- Package: TSSOP-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

- USB full-speed host, HUB, or peripheral
- Ports

Dimensions and Pin Configuration



Marking



PINS	TYPE	DESCRIPTION
8	Analog input	Transient suppressor input - Line 1
6	Analog input	Transient suppressor input - Line 2
2	Analog input	Transient suppressor input - Line 3
4	Analog input	Transient suppressor input - Line 4
1, 3, 5, 7	Power	Local device ground

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

TECH PUBLIC Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	100	W
Peak Pulse Current (8/20μs)	Ipp	9	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	7	9	V	IT=1mA
Reverse Leakage Current	IR			0.2	uA	VRWM = 5V
Clamping Voltage	VC			14	V	Ipp=9A,(8X20us pulse),any i/o to GND
Junction Capacitance	CJ			70	pF	VR = 0V, f = 1MHz, any I/O to GND
Junction Capacitance	CJ		35		pF	VR = 0V, f = 1MHz, between I/O pins

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

Fig1. 8/20 μs Pulse Waveform

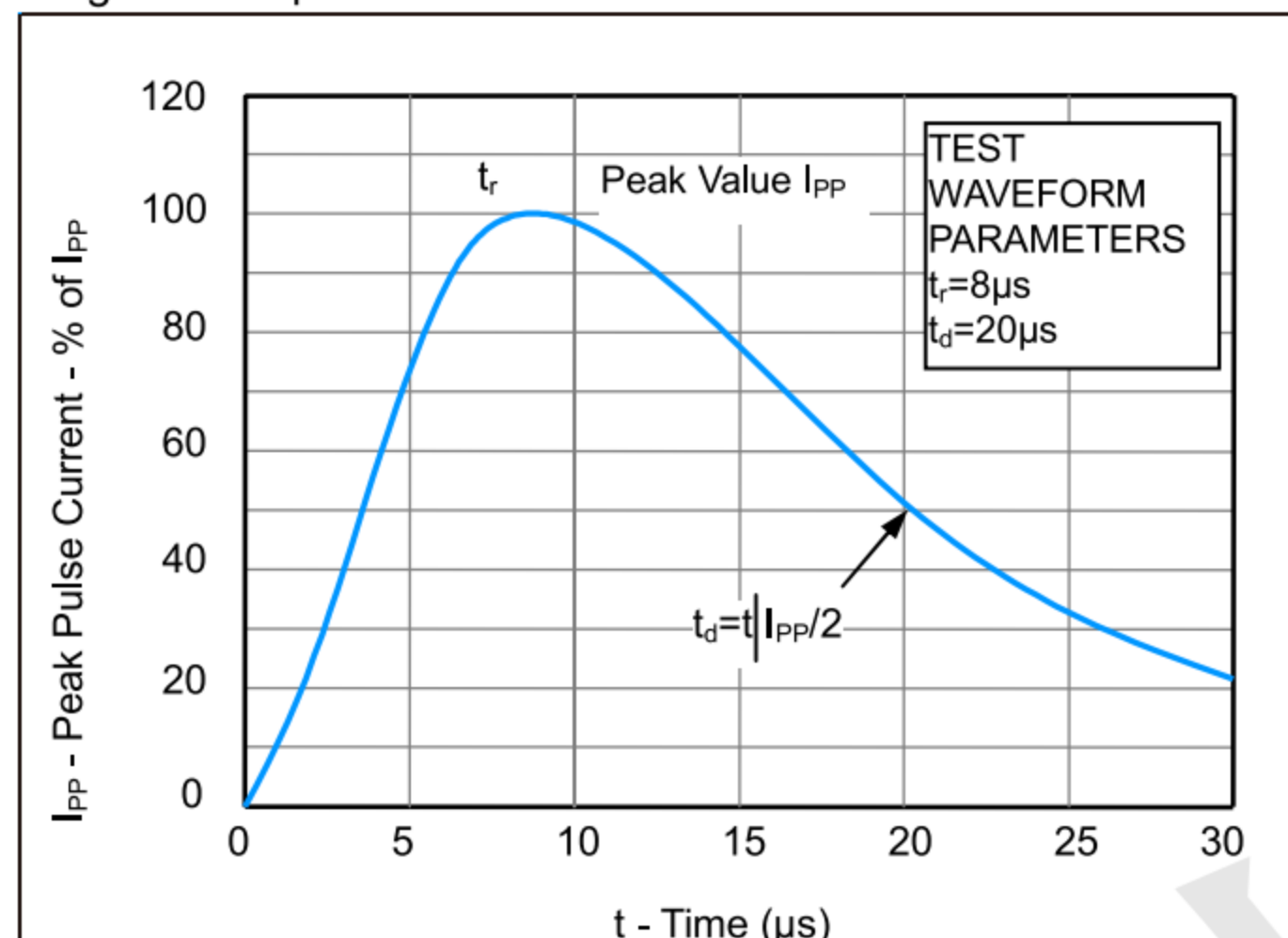


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

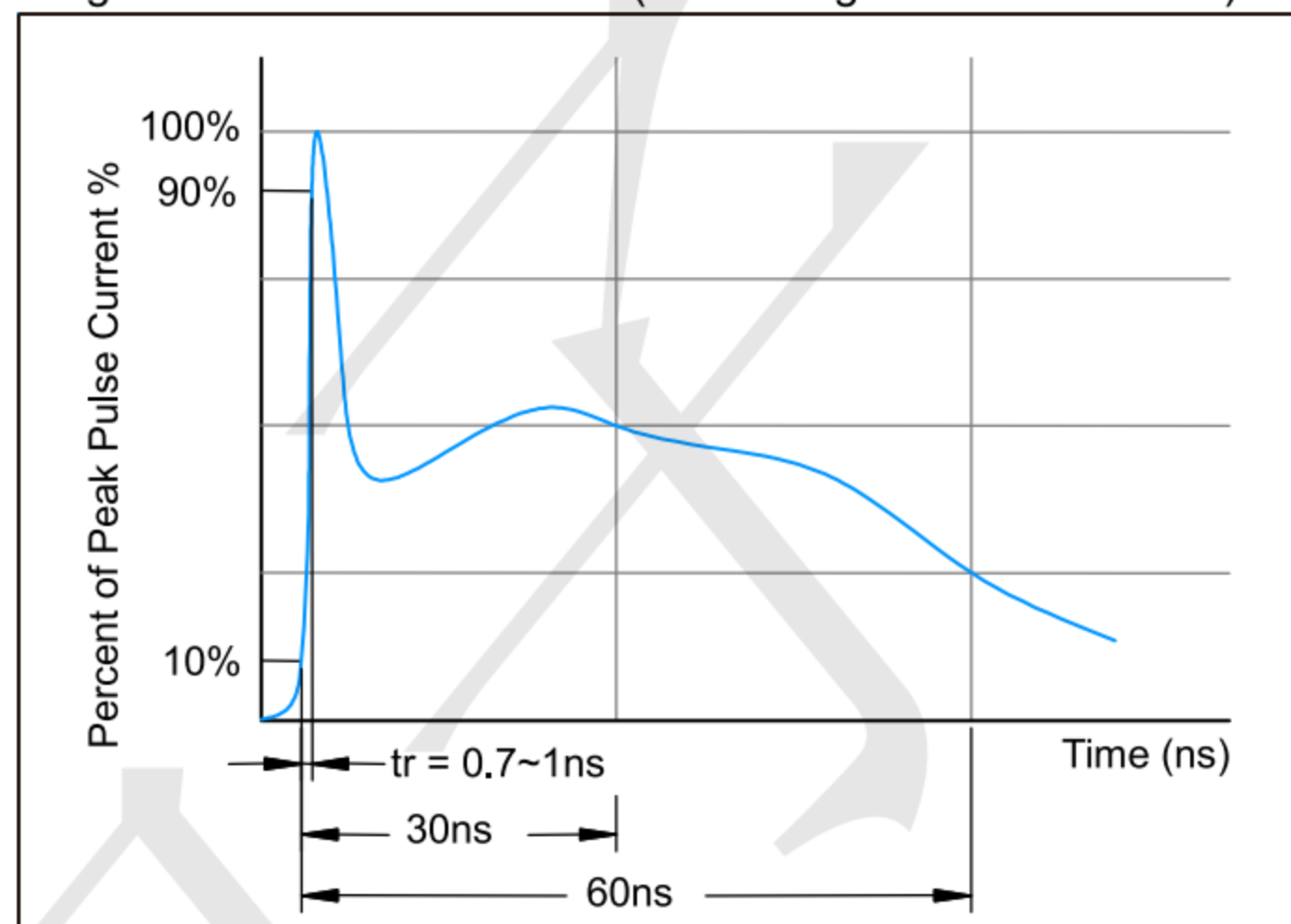
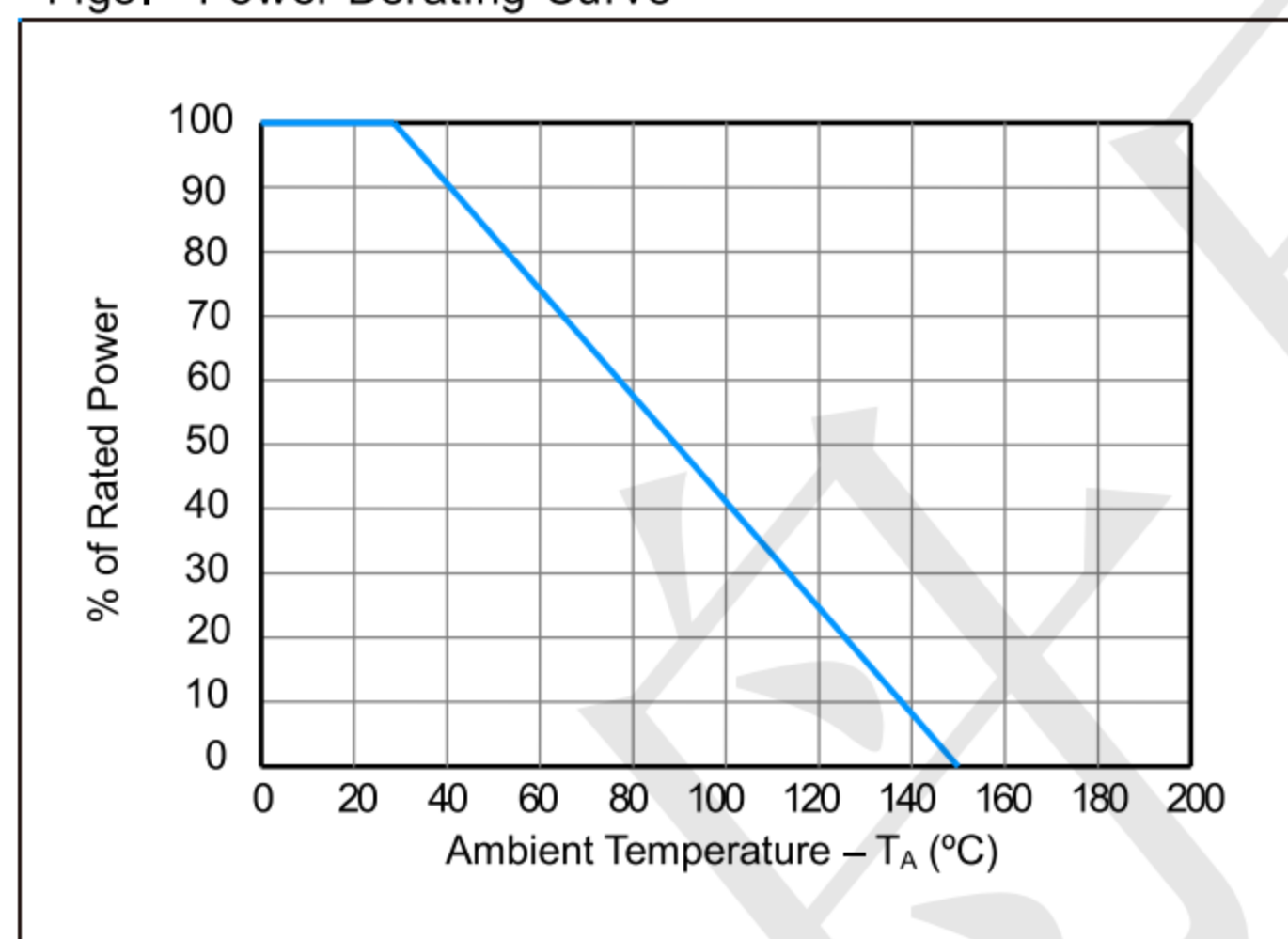
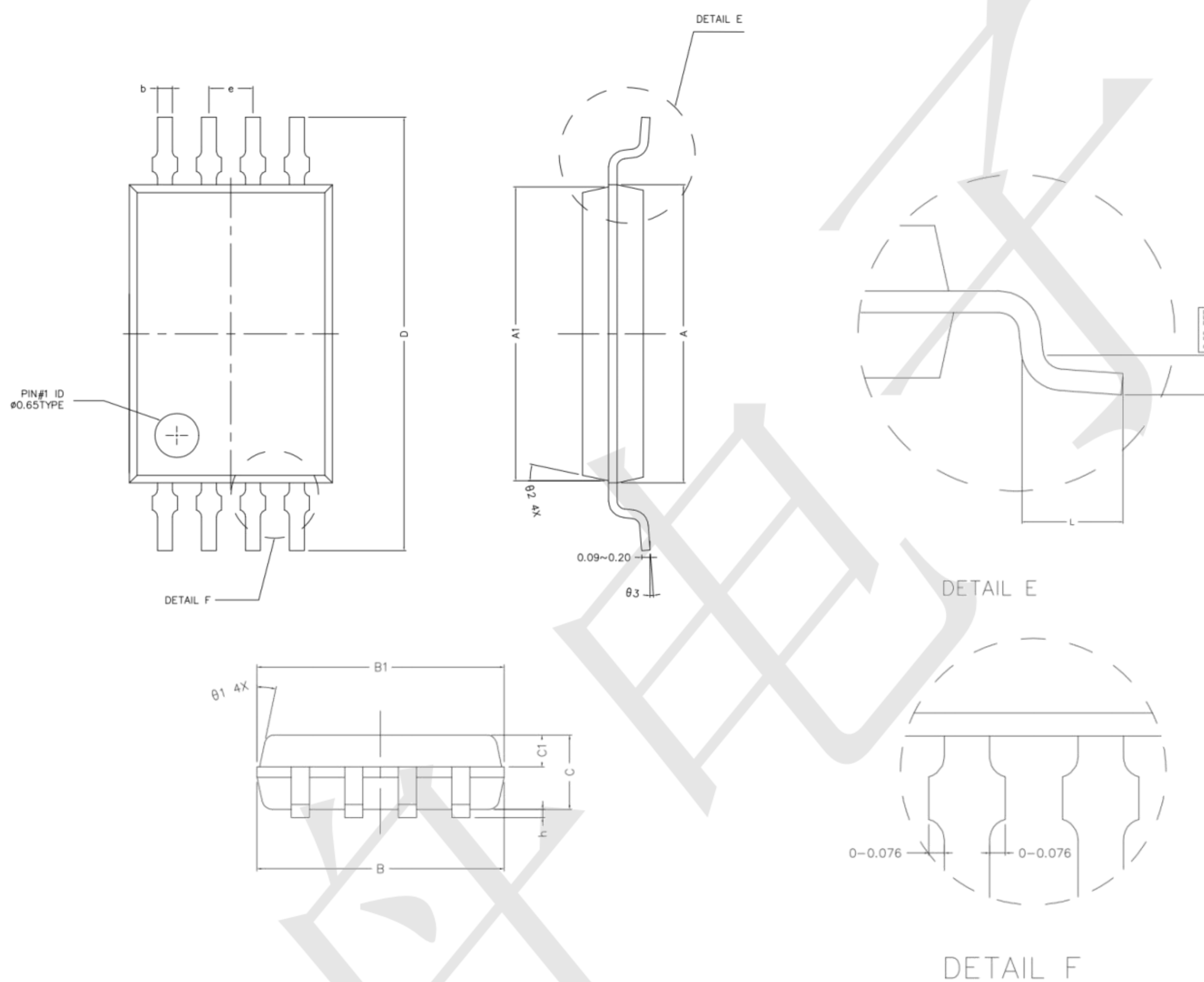


Fig3. Power Derating Curve



Outline Drawing - TSSOP8



COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	4.300	4.400	4.500
A1	4.240	4.340	4.440
B	2.900	3.000	3.100
B1	2.840	2.940	3.040
C	0.850	0.900	0.950
C1	0.337	0.387	0.437
D	6.250	6.400	6.550
L	0.450	0.600	0.750
b	0.170	0.220	0.300
h	0.050	0.100	0.150
e	0.650TYPE		
θ_1	12° TYPE		
θ_2	12° TYPE		
θ_3	0° ~ 7°		