

Features

- ◆ Ultra low capacitance: 0.6pF typical I/O to GND
- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 5.5V
- ◆ Uni-directional TVS Diode Array
- ◆ Low clamping voltage
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±20kV
 - Contact discharge: ±15kV
 - IEC61000-4-5 (Lightning)3.3A (8/20 μs)
 - IEC61000-4-4 (EFT) 80A (5/50ns)
- ◆ ROHS Compliant

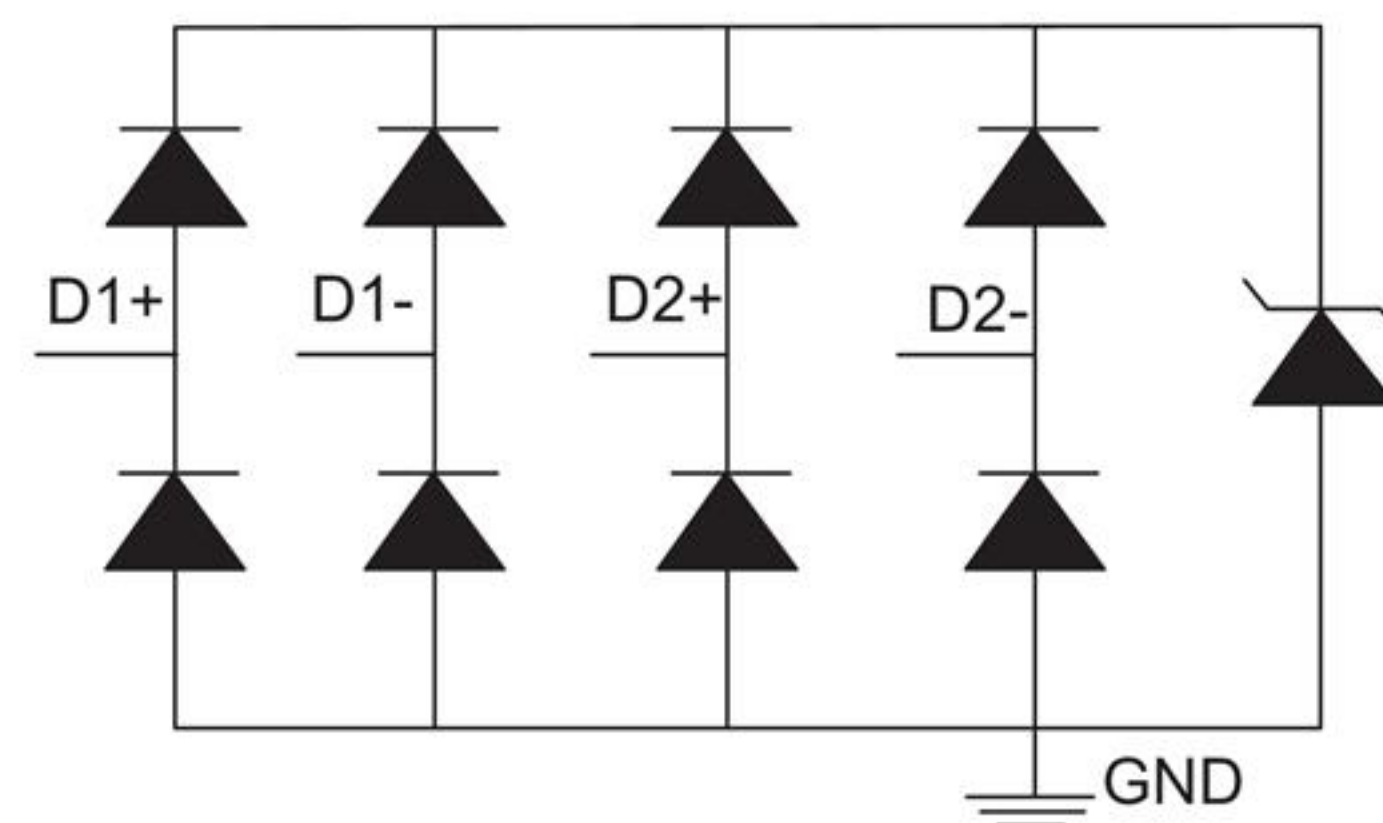
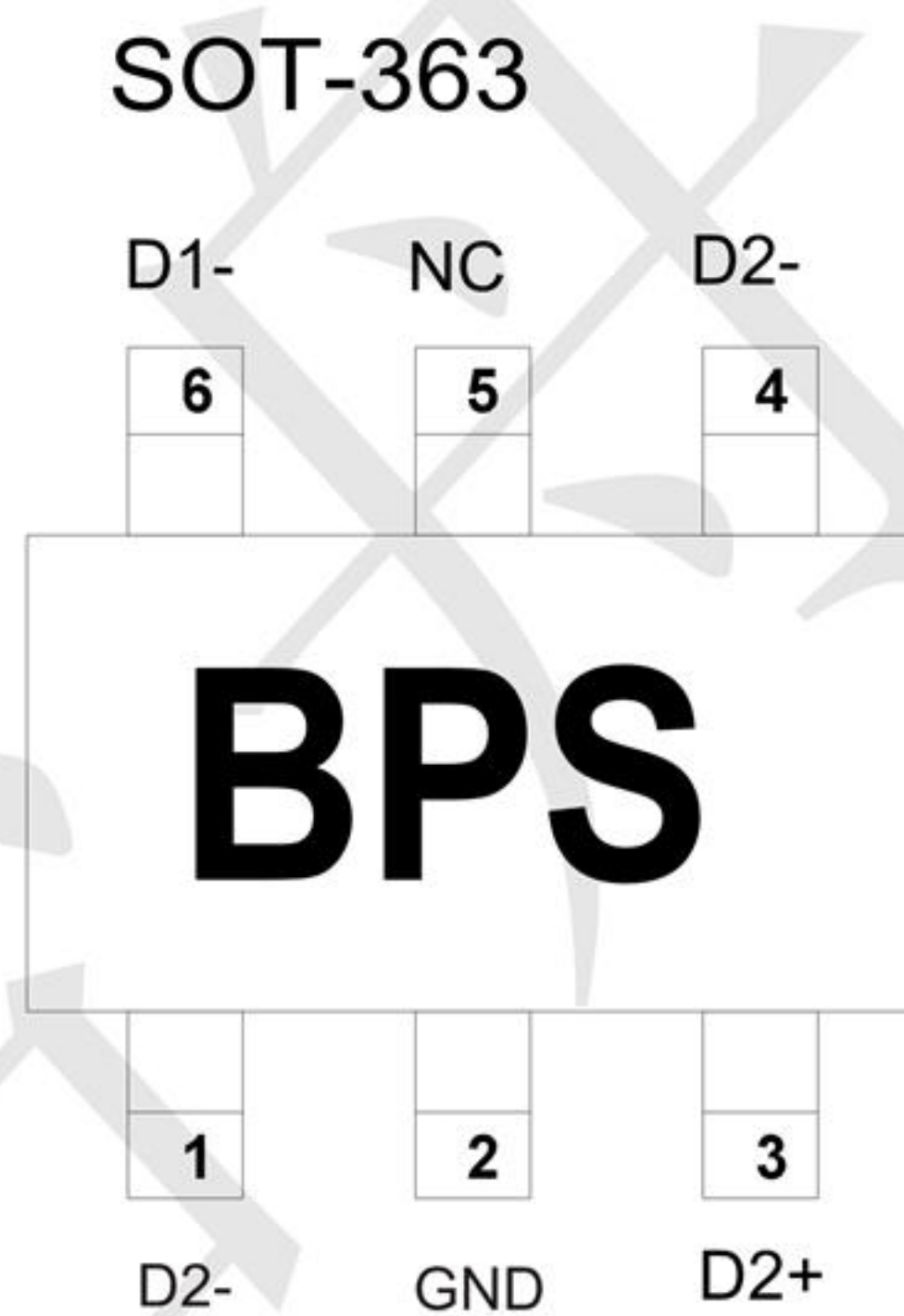
Mechanical Characteristics

- ◆ 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
- ◆ Shipping Qty : 3000pcs/7Inch Tape & Reel

Applications

- ◆ Glucose Meter
- ◆ Tablets
- ◆ GPS
- ◆ Portable Media Players

Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppk	50	W
ESD per IEC61000-4-2 (Air)	V _{ESD}	±20	kV
ESD per IEC61000-4-2 (Contact)		±15	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			5.5	V	
Breakdown Voltage	V _{BR}	6.5		8.5	V	I _T =1mA
Leakage Current	I _{Leak}			10	nA	V _{RWM} =2.5V
Dynamic resistance	R _{DYN}		0.6		Ω	any I/O pin to GND
Clamping Voltage (I/O-GND)	V _C			9	V	I _{PP} =1A, T _p =8/20 µs
Clamping Voltage (I/O-GND)	V _C		13	14	V	I _{PP} =3A, T _p =8/20 µs
Junction Capacitance (I/O to GND)	C _J		0.55	0.9	pF	V _R =0V, f=1MHz,

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

Fig1. 8/20 μs Pulse Waveform

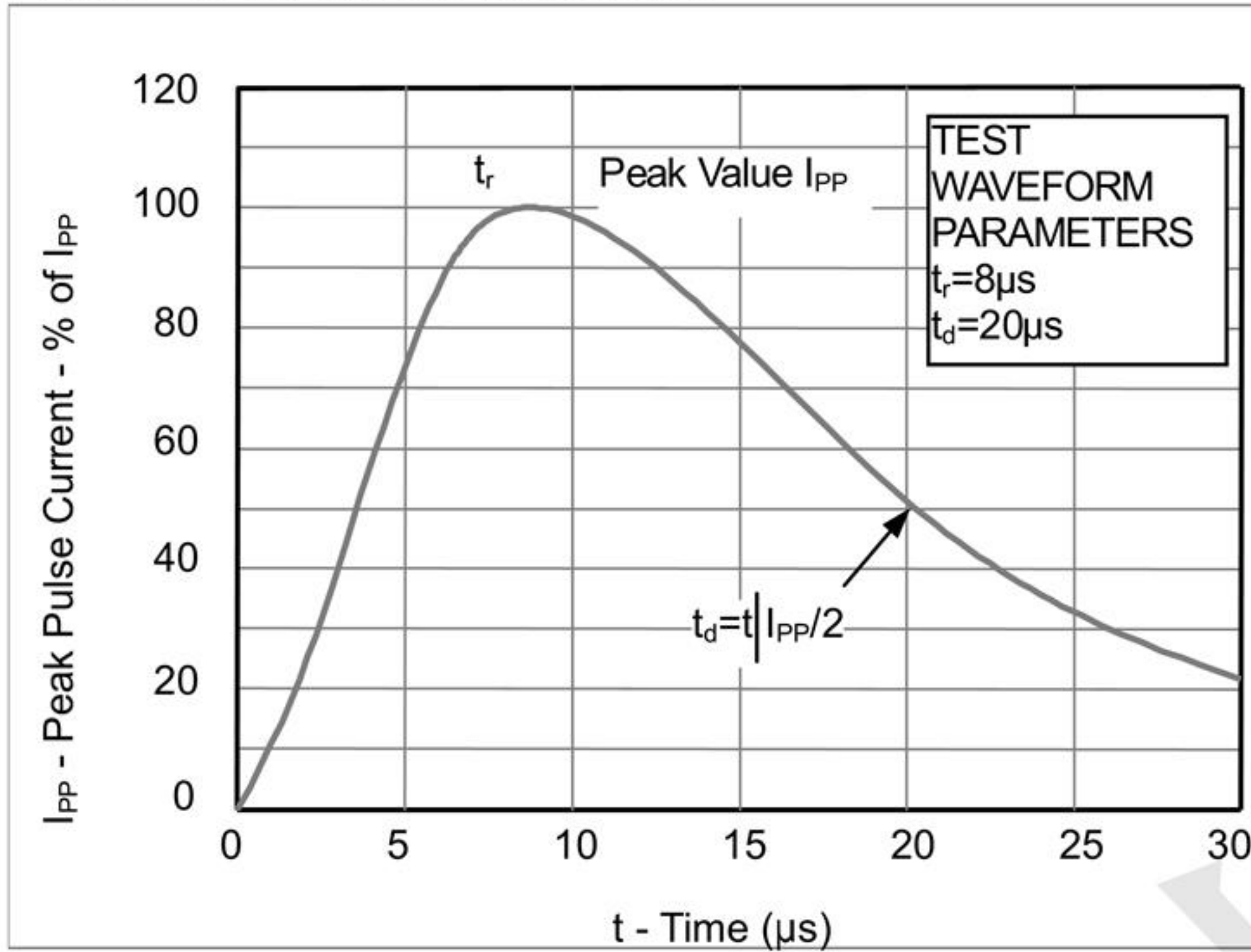


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

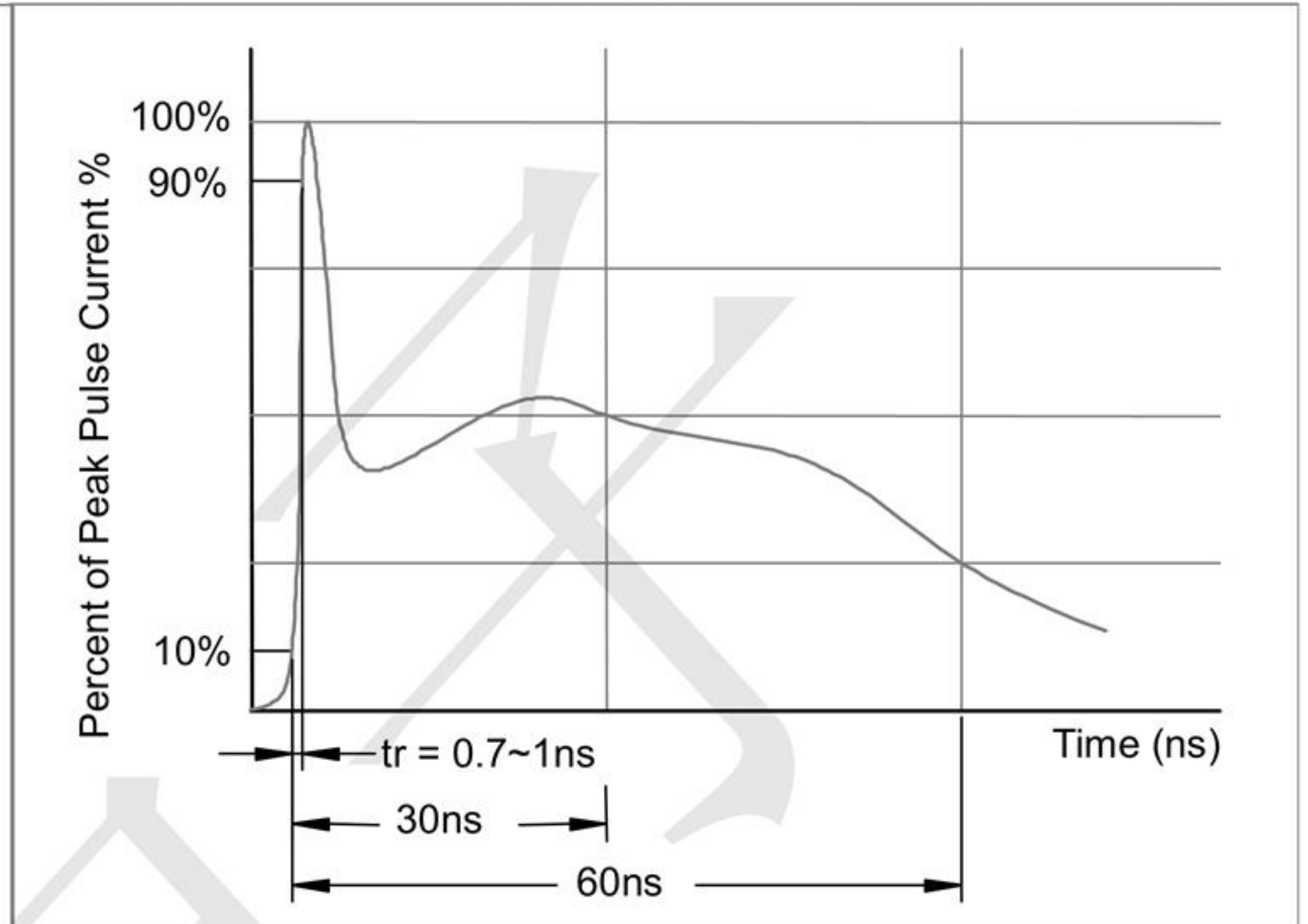
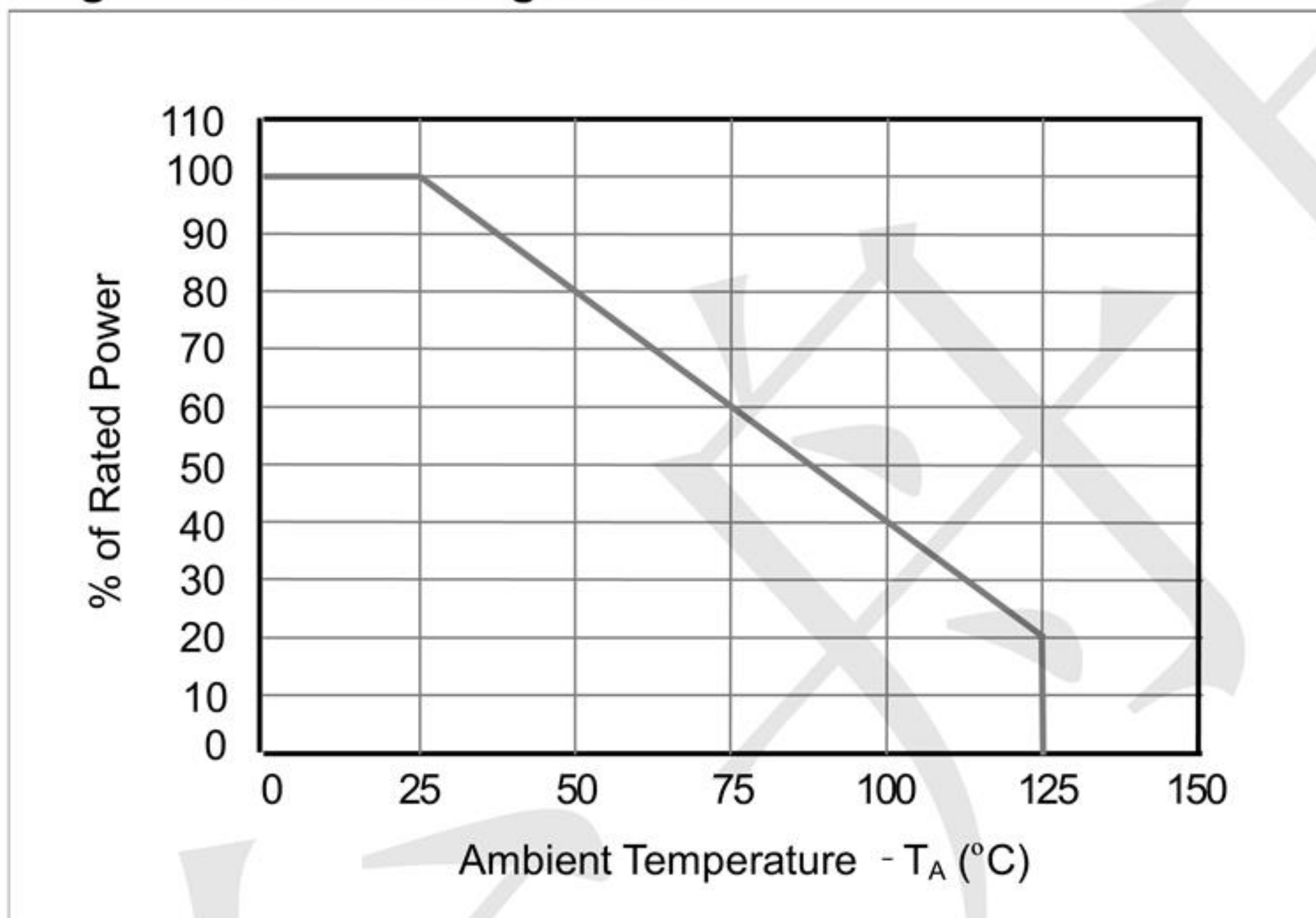
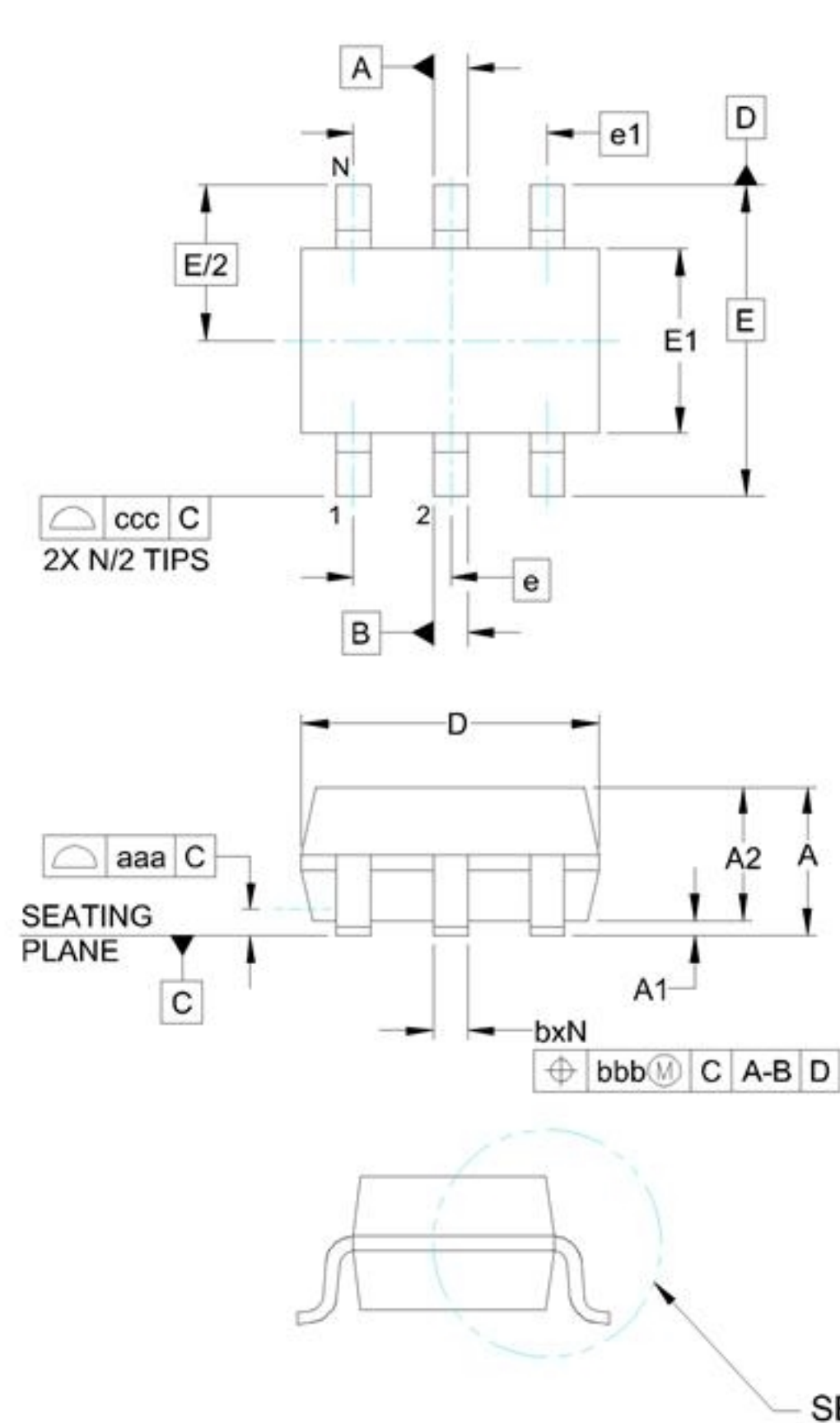


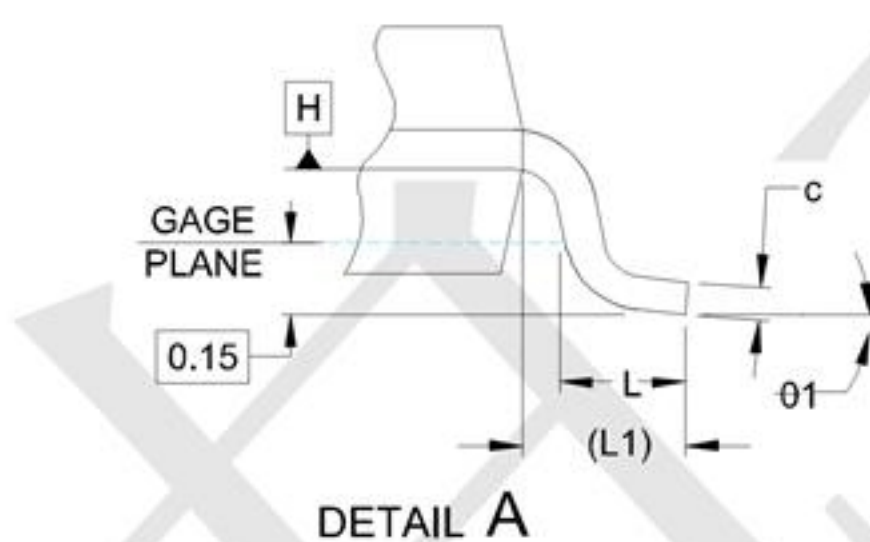
Fig3. Power Derating Curve



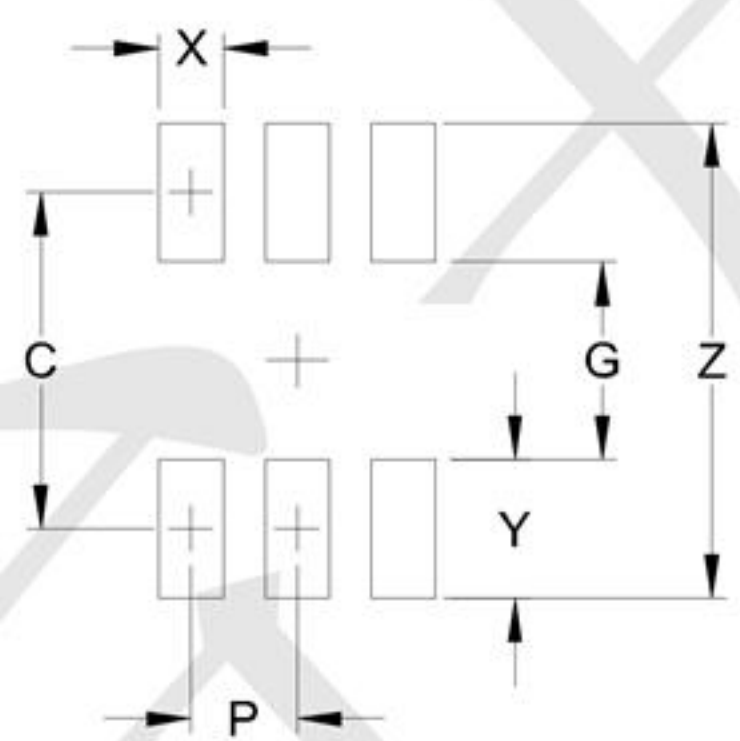
Outline Drawing - SOT-363(2.0X2.1)



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	-	-	.043	-	-	1.10
A1	.000	-	.004	0.00	-	0.10
A2	.028	.035	.039	0.70	0.90	1.00
b	.006	-	.012	0.15	-	0.30
c	.003	-	.009	0.08	-	0.22
D	.071	.079	.087	1.80	2.00	2.20
E1	.045	.049	.053	1.15	1.25	1.35
E	.083 BSC			2.10 BSC		
e	.026 BSC			0.65 BSC		
e1	.051			1.30 BSC		
L	.010	.014	.018	0.26	0.36	0.46
L1	(.017)			(0.42)		
N	6			6		
01	0°	-	8°	0°	-	8°
aaa	.004			0.10		
bbb	.004			0.10		
ccc	.012			0.30		



Land Pattern - SOT-363



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.073)	(1.85)
G	.039	1.00
P	.026	0.65
X	.016	0.40
Y	.033	0.85
Z	.106	2.70