

Features

- VCC Pin = 16 V Protection
- D1,D2,and D3 Pins = 6.8 V Protection
- IEC 61000-4-2 (ESD) immunity test
 Air discharge: $\pm 15\text{kV}$
 Contact discharge: $\pm 8\text{kV}$
- RoHS Compliant
- Lead Finish: NiPdAu

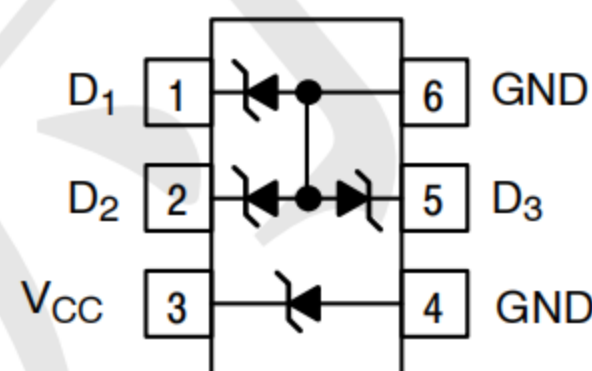
Mechanical Characteristics

- Package: SOT563 (1.6mmx1.6mmx0.6mm)
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Pb-Free, Halogen Free, RoHS/WEEE Compliant
- Shipping Qty : 4000pcs/7Inch Tape & Reel

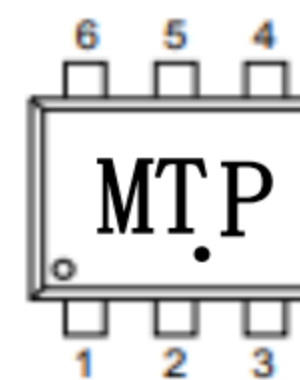
Applications

- Hand Held Portable Applications
- USB Interface
- Notebooks, Desktops, Servers
- SIM Card Protection

Dimensions and Pin Configuration



Marking



Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs) VCC Diode	Ppk	200	W
Peak Pulse Power (8/20 μs) D1, D2, and D3		20	
ESD per IEC 61000-4-2 (Air)	VESD	± 15	kV
ESD per IEC 61000-4-2 (Contact)		± 8	
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Un	Test Condition
Reverse Working Voltage	VRWM			5	V	
Breakdown Voltage(D1,D2 and D3)	VBR	6	6.8	7.8	V	IT = 1mA
Breakdown Voltage (VCC)	VBR	13.3	16	17	V	IT = 1mA
Forward Voltage (D1,D2 and D3)	IR			0.2	μA	VRWM = 5V
Clamping Voltage (VCC)	IR			0.2	μA	VRWM = 12V
Junction Capacitance (D1,D2 and D3)	CJ		7	11	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

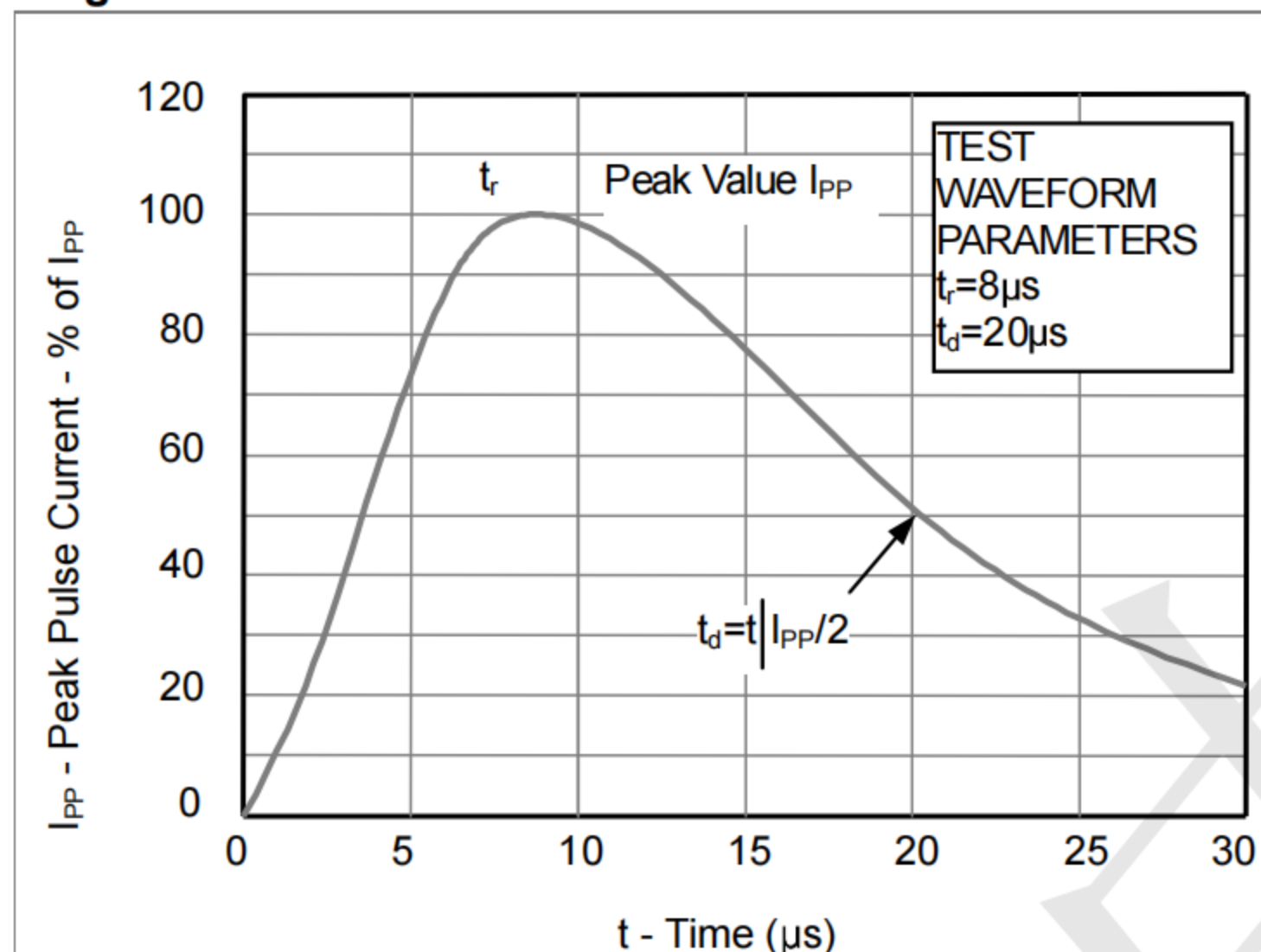


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

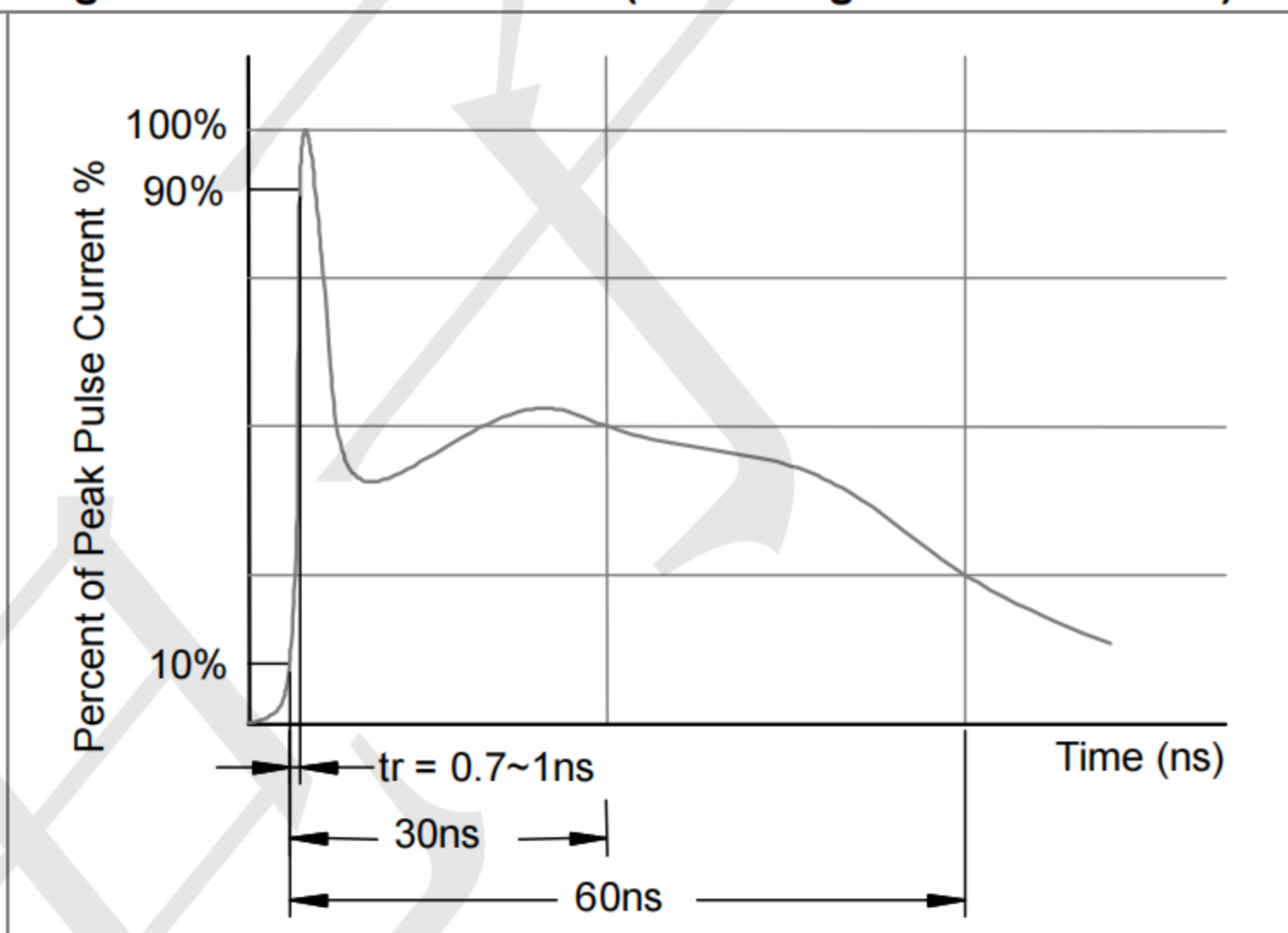
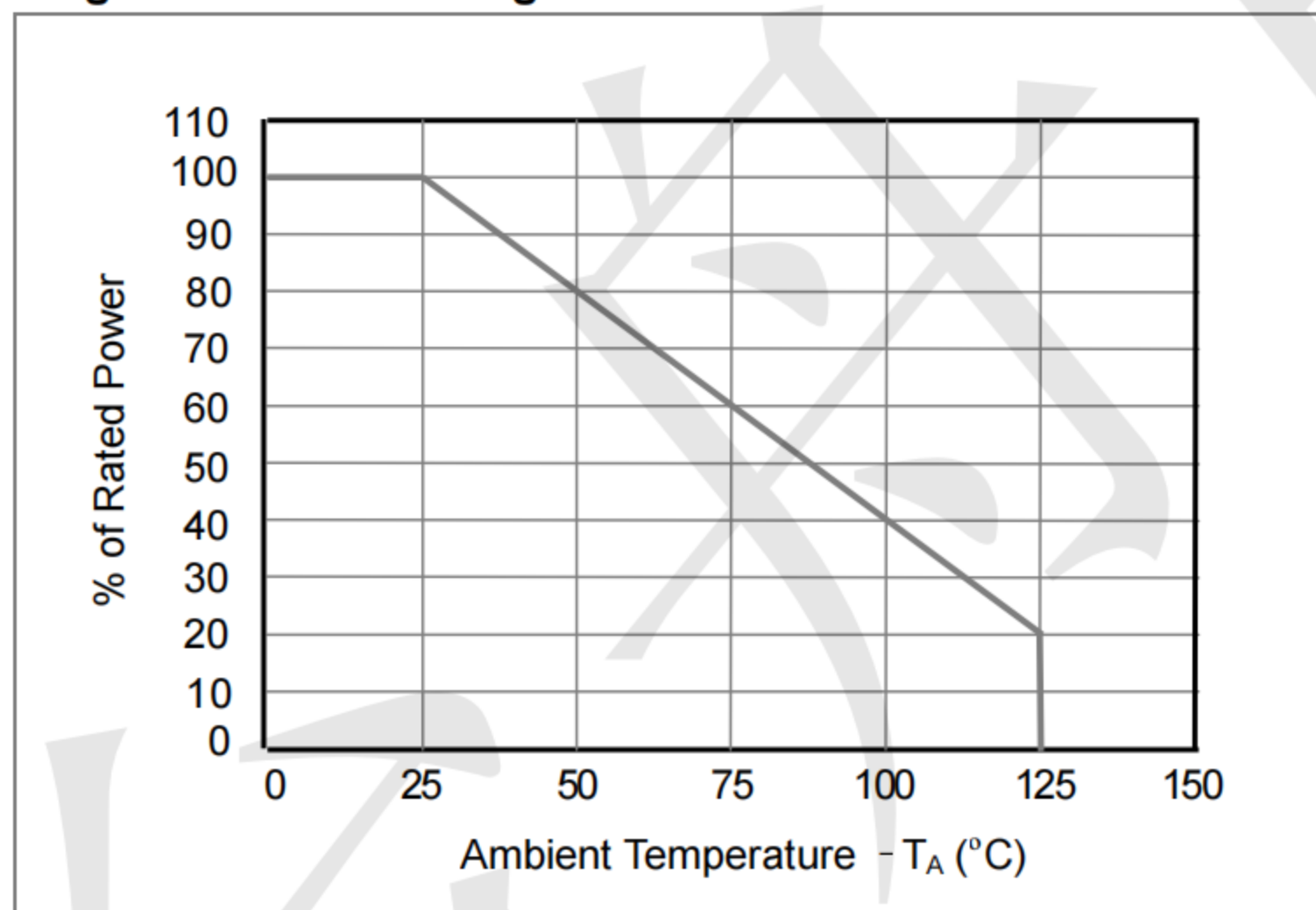
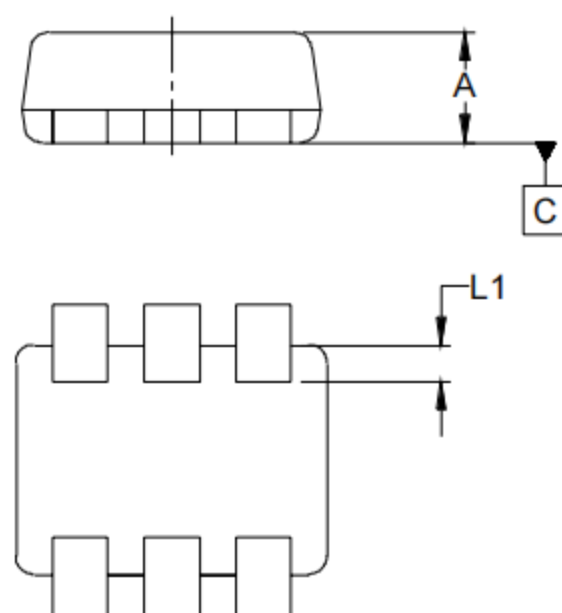
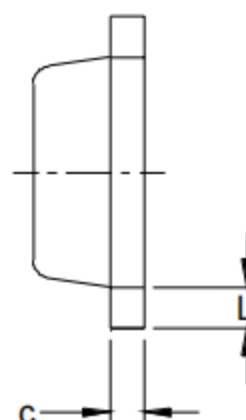
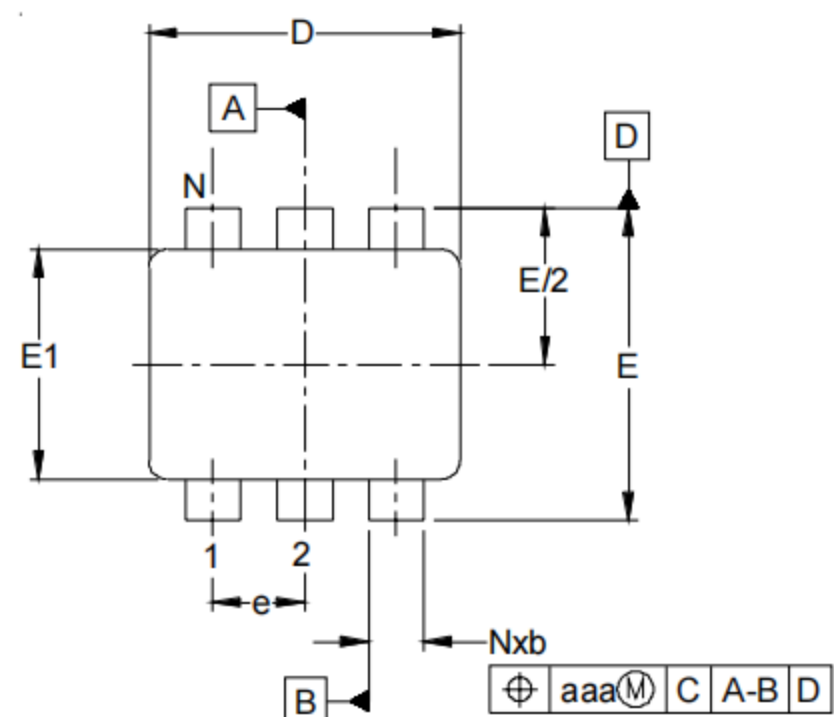


Fig3. Power Derating Curve

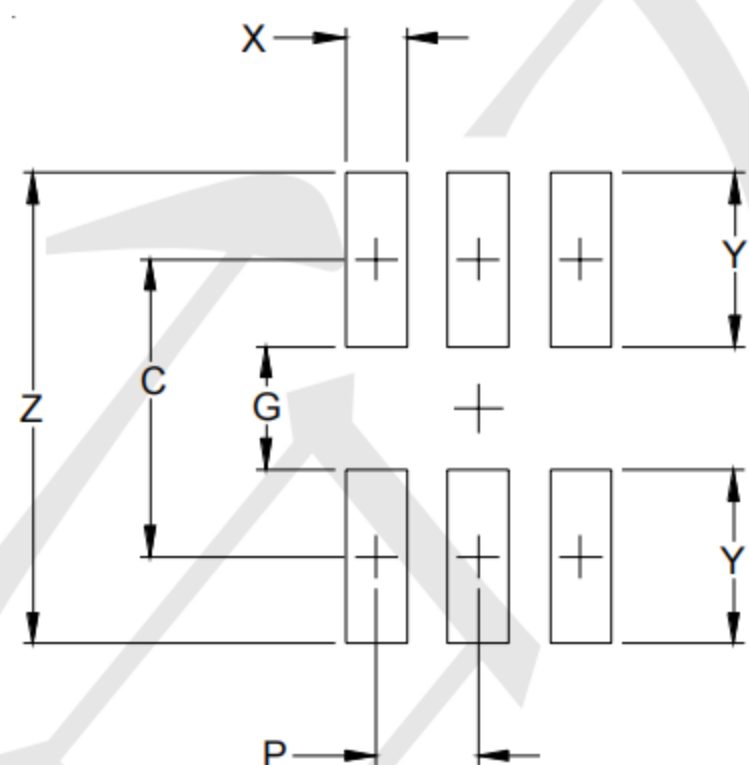


Outline Drawing - SOT-563



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	.019	-	.024	0.50	-	0.60
b	.005	-	.012	0.15	-	0.30
c	.003	-	.007	0.10	-	0.18
D	.059	.063	.067	1.50	1.60	1.70
E	.061	.063	.067	1.55	1.60	1.70
E1	.043	.047	.049	1.10	1.20	1.25
e	.020 BSC			0.50 BSC		
L	.003	.008	.012	0.10	0.20	0.30
L1	.003	.006	.008	0.10	0.15	0.20
N	6			6		
aaa	.004			0.10		

Land Pattern - SOT-563



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
C	(.057)	(.057)	(1.45)	(1.45)
P	.020	.020	0.50	0.50
G	.024	.024	0.60	0.60
X	.012	.012	0.30	0.30
Y	.033	.033	0.85	0.85
Z	.090	.090	2.30	2.30