

Features

- Ultra low leakage: nA level
- Operating voltage: 24V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25\text{kV}$
 - Contact discharge: $\pm 25\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant
- AEC-Q101 qualified

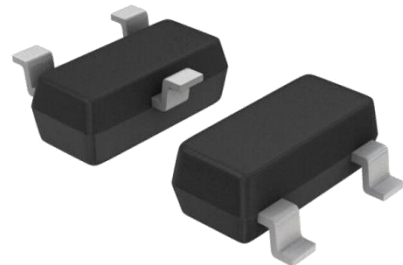
Applications

- Open Alliance IEEE 100/1000BASE-T1 Ethernet
- Low-Voltage Differential Signaling (LVDS)
- Automotive

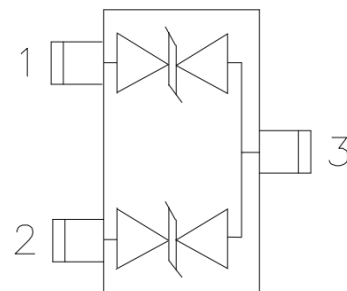
Mechanical Characteristics

- Package: SOT-23
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7inch
- Device Marking: MK60

Dimensions SOT-23



Pin Configuration



Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

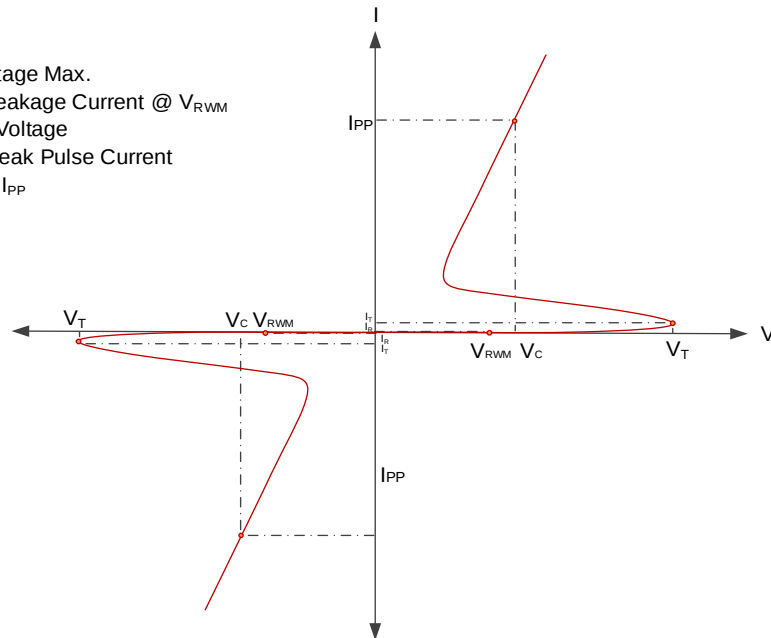
Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 25	kV
ESD per IEC 61000-4-2 (Contact)		± 25	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +125	°C

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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				24	V
Reverse Leakage Current	I_R	$V_{RWM}=24V$			0.1	μA
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	100			V
ESD Clamping Voltage	V_C	$I_{TLP}=4A, t_p=0.2/100ns$		29.5		V
ESD Clamping Voltage	V_C	$I_{TLP}=16A, t_p=0.2/100ns$		32.5		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz,$ I/O pin to GND		2.0	2.5	pF
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz,$ Between I/O pins		0.95	1.2	pF

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

- V_{RWM} Reverse Working Voltage Max.
 I_R Maximum Reverse Leakage Current @ V_{RWM}
 V_{BR} Reverse Breakdown Voltage
 I_{PP} Maximum Reverse Peak Pulse Current
 V_C Clamping Voltage @ I_{PP}



Typical Performance Characteristics (TA=25°C unless otherwise specified)

Figure 1: Power Derating Curve

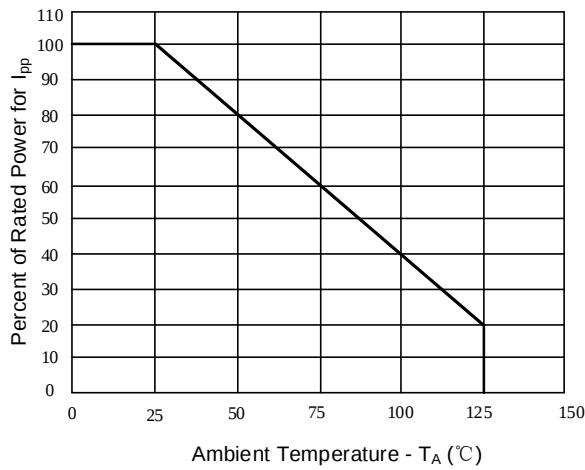


Figure 2: Pulse Waveform-ESD(IEC61000-4-2)

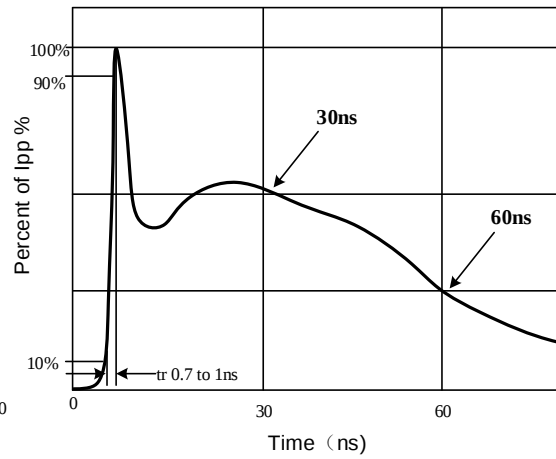


Figure 3: TLP Positive I-V Curve

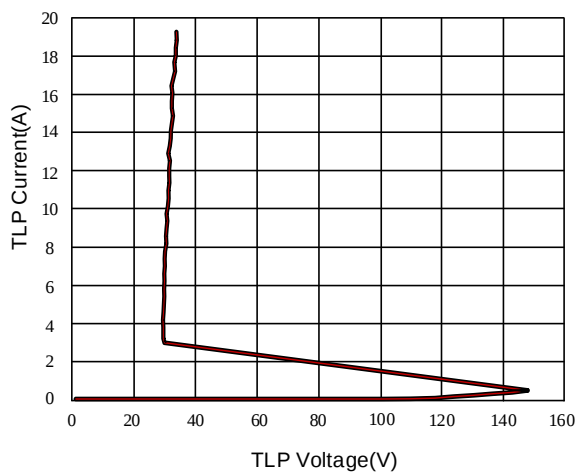
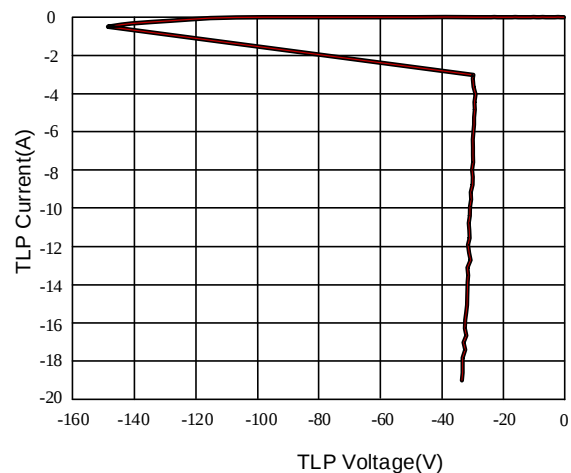
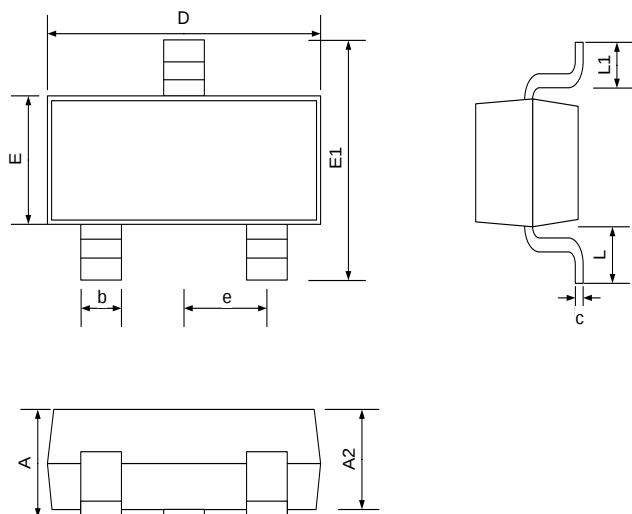


Figure 4: TLP Negative I-V Curve

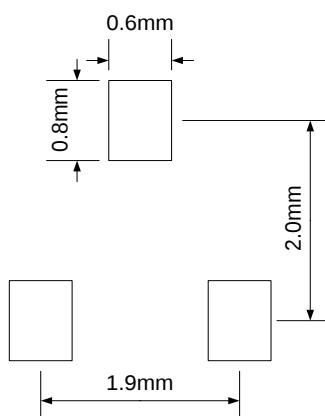


SOT-23 Package Outline Drawing



COMMON DIMENSION (mm)			
PKG	SOT23		
REF.	MIN.	NOM.	MAX.
A	0.900		1.150
A2	0.900		1.050
b	0.300		0.500
c	0.080		0.150
D	2.800		3.000
E	1.200		1.400
E1	2.250		2.550
e		0.950	
L		0.550	
L1	0.300		0.500

Suggested Land Pattern



* This Land Pattern is For Reference Purposes Only

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