

Very Low Capacitance ESD Protection

BL0504H-6L

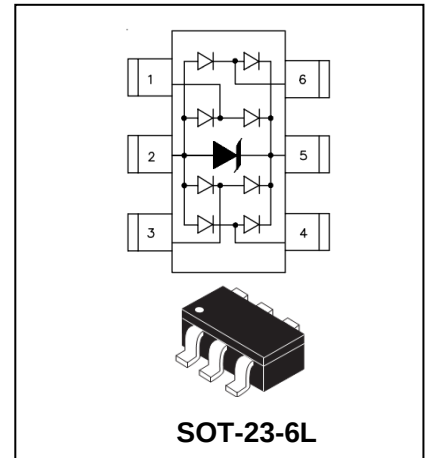
Feature

- 4 data-line protection.
- Protects VBUS.
- Very low capacitance: 0.5 pF max.
- Very low leakage current: 100 nA max.
- RoHS compliant.

HF

Applications

- USB 2.0
- Compatible with USB 1.1 low and full speed.
- Ethernet port: 10/100 Mb/s.
- SIM card protection.
- Video line protection.
- Portable electronic.



ORDERING INFORMATION

Type No.	Marking	Package Code
BL0504H-6L	.504H	SOT-23-6L

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V _{PP}	Peak pulse voltage		
	IEC 61000-4-2 air discharge	20	
	IEC 61000-4-2 contact discharge	15	
	MIL STD883G-Method 3015-7	25	kV
T _L	Lead solder temperature (10 seconds duration)	260	°C
T _J	Junction Temperature	125	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS PER LINE @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Leakage current	I_{RM}	$V_{RM} = 5.0\text{ V}$		10	100	nA
Breakdown voltage between V_{BUS} and GND	V_{BR}	$I_R = 1\text{ mA}$	6.5		9.0	V
Forward voltage	V_F	$I_F = 10\text{ mA}$			1.1	V
Clamping Voltage	V_{CL}	$I_{PP} = 1\text{ A}, t_P = 8/20\mu\text{s}$, Any I/O pin to GND			11	V
		$I_{PP} = 4.0\text{ A}, t_P = 8/20\mu\text{s}$, Any I/O pin to GND			13	V
Capacitance between I/O-I/O	C_i	$V_R = 0\text{ V}, f = 1\text{ MHz}$		0.35	0.5	pF
Capacitance between I/O-GND	C_i	$V_R = 0\text{ V}, f = 1\text{ MHz}$		0.7	1.0	pF

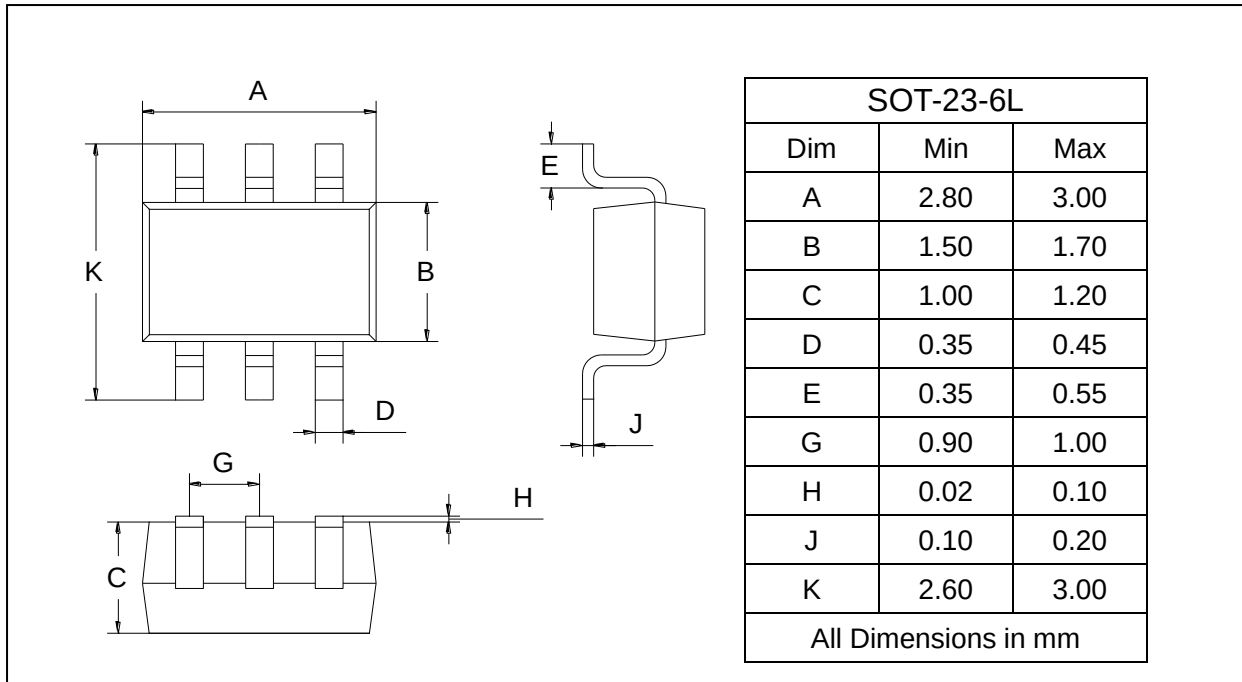
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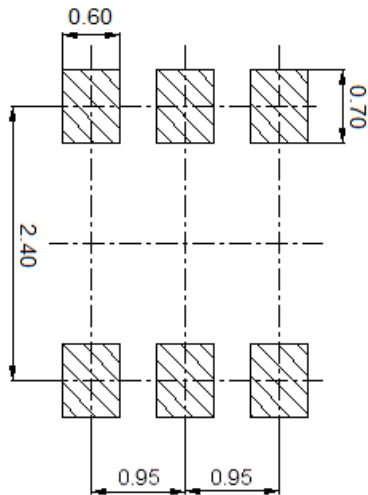
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23-6L



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
BL0504H-6L	SOT-23-6L	3000 pcs / Tape & Reel