



DWLC236T5V2UA-Q ESD Protection Diode

Feature

- Uni-directional ESD protection of two lines
- 75Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage:5V
- Junction Capacitance: 0.8pF(Typ)
- Low clamping voltage
- Low leakage current
- AEC-Q101 qualified
- IEC 61000-4-2 $\pm 12kV$ contact $\pm 17kV$ air
- IEC 61000-4-5 (Lightning) 4.5A (8/20 μs)

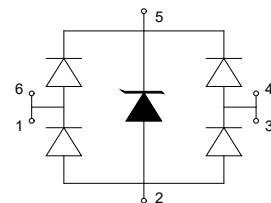
Application

- Portable electronics
- USB 2.0 and USB 3.0
- HDMI 1.3 and HDMI 1.4
- SATA and eSATA
- DVI
- IEEE 1394
- PCI Express
- Notebooks

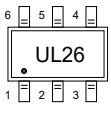
Mechanical Data

- Package: SOT-23-6L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWLC236T5V2UA-Q	SOT-23-6L		3000 pcs	7 inches



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

Parameter	Symbol	Min.	Max.	Unit
Peak pulse power ($t_p=8/20\mu\text{s}$)	P_{PK}	-	75	W
Peak pulse current ($t_p=8/20\mu\text{s}$)	I_{PP}		4.5	A
ESD (IEC61000-4-2 air discharge)	V_{ESD}	-	± 17	kV
ESD (IEC61000-4-2 contact discharge)	V_{ESD}	-	± 12	kV
Junction temperature	T_J	-	125	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-40	85	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55	150	$^{\circ}\text{C}$
Lead temperature	T_L	-	260	$^{\circ}\text{C}$

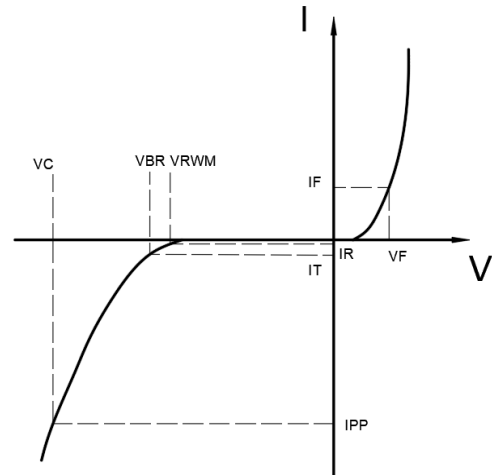
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6			V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$			1	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}$; $t_p=8/20\mu\text{s}$		10		V
Clamping Voltage	V_C	$I_{PP}=4.5\text{A}$; $t_p=8/20\mu\text{s}$		15		V
Junction Capacitance	C_J	$V_R=0\text{V}$; $f=1\text{MHz}$		0.8		pF

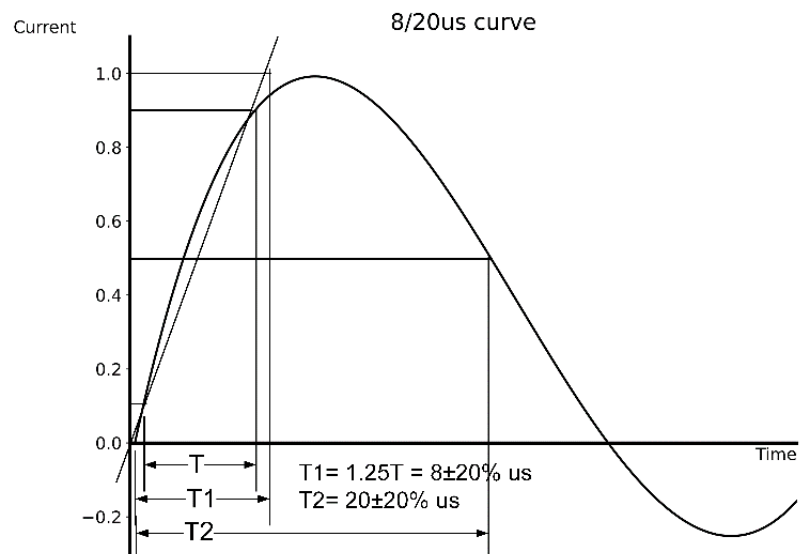


Electrical Parameters

Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F

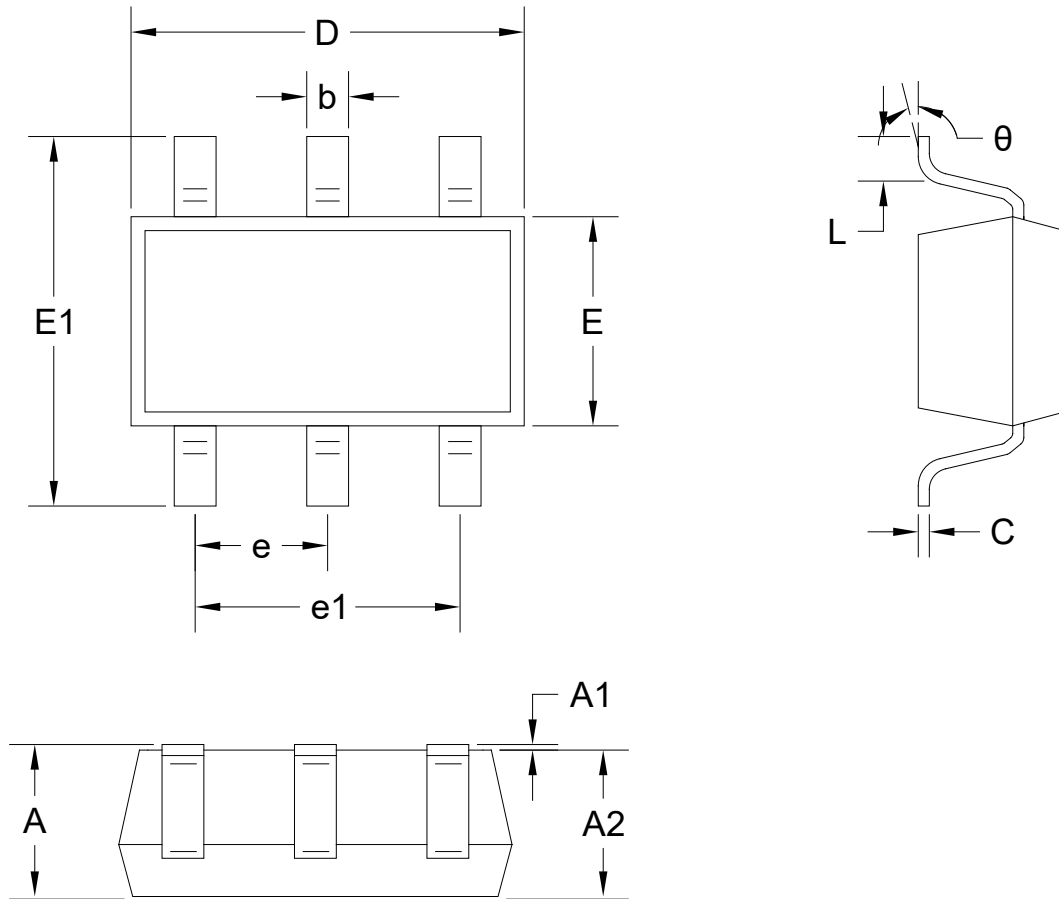


Typical Characteristics





SOT-23-6L Outline Drawing



Symbol		A	A1	A2	b	c	D
Spec	Min	1.050	0.000	1.050	0.300	0.100	2.820
	Max	1.250	0.100	1.150	0.500	0.200	3.020
Symbol		E	E1	e	e1	L	θ
Spec	Min	1.500	2.650	0.950BSC	1.800	0.300	0°
	Max	1.700	2.950		2.000	0.600	8°