DWLC353T5V4UA ESD Protection Diode

Feature

- Uni-directional ESD protection of four lines
- 60Watts peak pulse power (tp=8/20μs)
- Working voltage: 5V
- Junction Capacitance: 0.6pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±12kV contact ±17kV air
- IEC 61000-4-5 (Lightning) 4.5A (8/20μs)

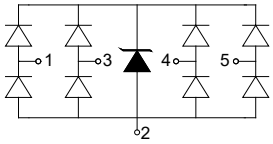
Application

- 10/100/1000 ethernet
- Notebook computers
- SIM ports
- ATM interface
- HDMI/USB2.0

Mechanical Data

- Package: SOT-353
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWLC353T5V4UA	SOT-353		3000 pcs	7 inches

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

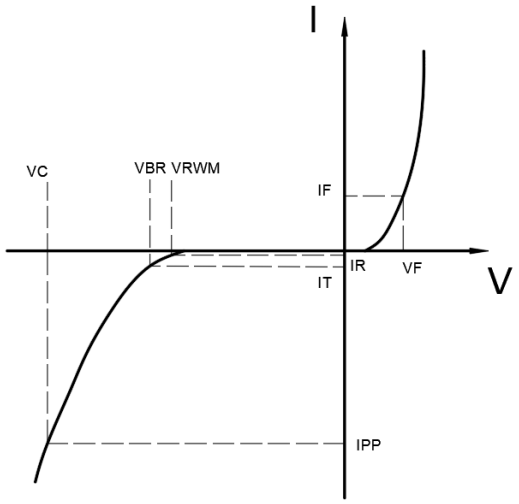
Parameter	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)	P_{PK}	-	60	W
Peak pulse current (tp=8/20us)	I_{PP}		4.5	A
ESD (IEC61000-4-2 air discharge)	V_{ESD}	-	±17	kV
ESD (IEC61000-4-2 contact discharge)	V_{ESD}	-	±12	kV
Junction temperature	T_J	-	125	℃
Operating temperature	T_{OP}	-40	85	℃
Storage temperature	T_{STG}	-55	150	℃
Lead temperature	T_L	-	260	℃

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

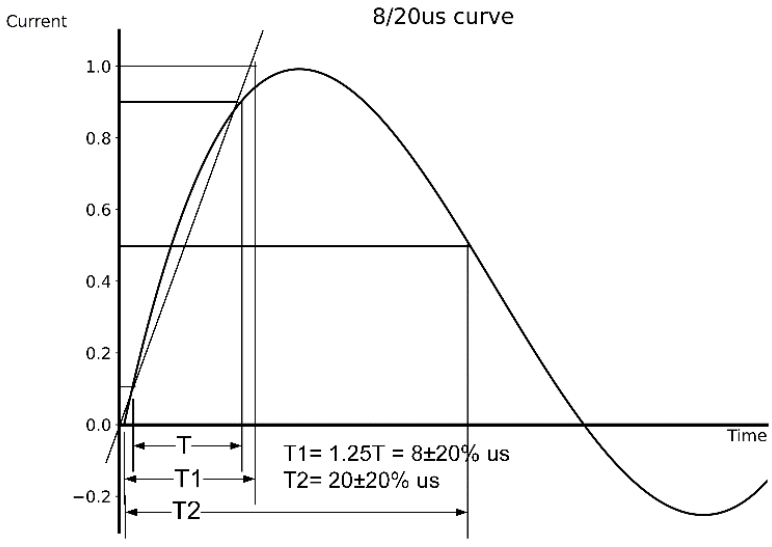
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T = 1mA	6			V
Reverse Leakage Current	I_R	V_{RWM} = 5V			1	uA
Clamping Voltage	V_C	I_{PP}=1A; tp=8/20us		8.5		V
Clamping Voltage	V_C	I_{PP}=4.5A;tp=8/20us		12		V
Junction Capacitance	C_J	IO-GND V_R=0V; f=1MHz		0.6		pF
Junction Capacitance	C_J	IO-IO V_R=0V; f=1MHz		0.3		pF

Electrical Parameters

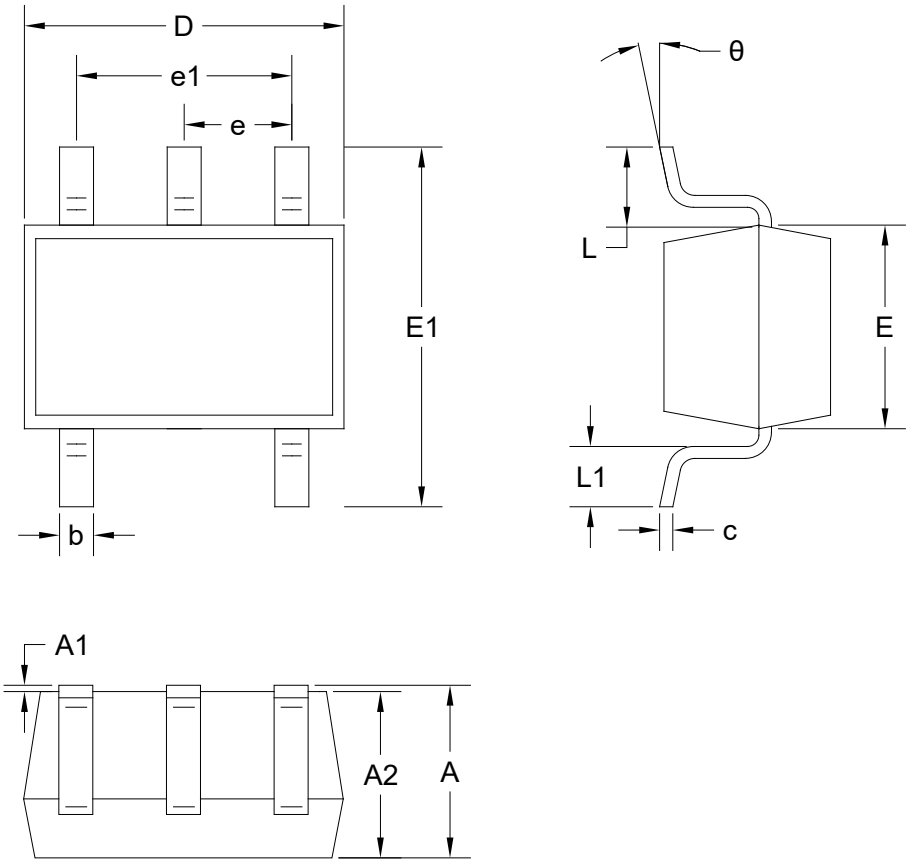
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F



Typical Characteristics



SOT-353 Outline Drawing



Unit: mm

Symbol		A	A1	A2	b	c	D	θ
Spec	Min	0.900	0.000	0.900	0.150	0.080	2.000	0°
	Max	1.100	0.100	1.000	0.350	0.150	2.200	8°
Symbol		E	E1	e	e1	L	L1	-
Spec	Min	1.150	2.150	0.650	1.200	0.525	0.2600	-
	Max	1.350	2.450	REF	1.400	REF	0.4600	-