



DWLC323T5V2U-Q ESD Protection Diode

Feature

- Uni-directional ESD protection of two lines
- 60Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage:5V
- Junction Capacitance: 0.6pF(Typ)
- Low clamping voltage
- Low leakage current
- AEC-Q101 qualified
- IEC 61000-4-2 $\pm 15kV$ contact $\pm 8kV$ air
- IEC 61000-4-5 (Lightning) 4A (8/20 μs)

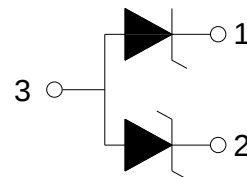
Application

- Portable electronics
- Control & monitoring systems
- Servers, notebooks, and desktop PCs
- Set-top box
- Communication systems

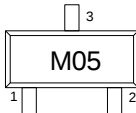
Mechanical Data

- Package: SOT-323
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWLC323T5V2U-Q	SOT-323		3000 pcs	7 inches



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

Parameter	Symbol	Min.	Max.	Unit
Peak pulse power ($t_p=8/20\mu\text{s}$)	P_{PK}	-	60	W
Peak pulse current ($t_p=8/20\mu\text{s}$)	I_{PP}		4	A
ESD (IEC61000-4-2 air discharge)	V_{ESD}	-	± 15	kV
ESD (IEC61000-4-2 contact discharge)	V_{ESD}	-	± 8	kV
Junction temperature	T_J	-	150	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-40	125	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55	150	$^{\circ}\text{C}$
Lead temperature	T_L	-	260	$^{\circ}\text{C}$

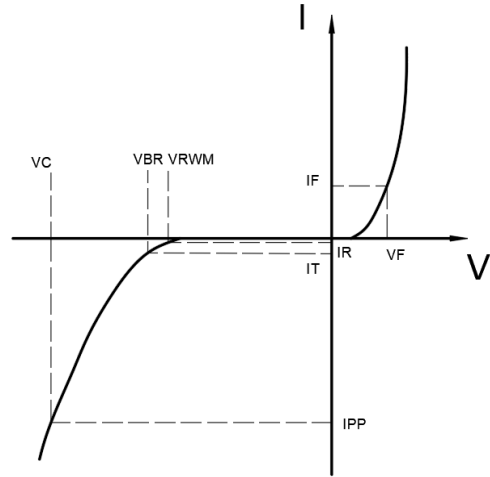
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

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	$I_{PP}=4\text{A}$; $t_p=8/20\mu\text{s}$		15		V
Junction Capacitance	C_J	$V_R=0\text{V}$; $f=1\text{MHz}$		0.6		pF

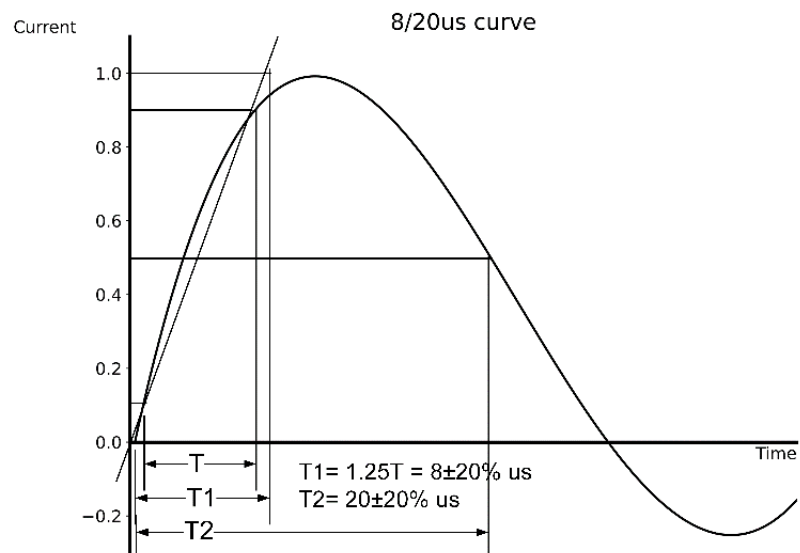


Electrical Parameters

Symbol	Parameter
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

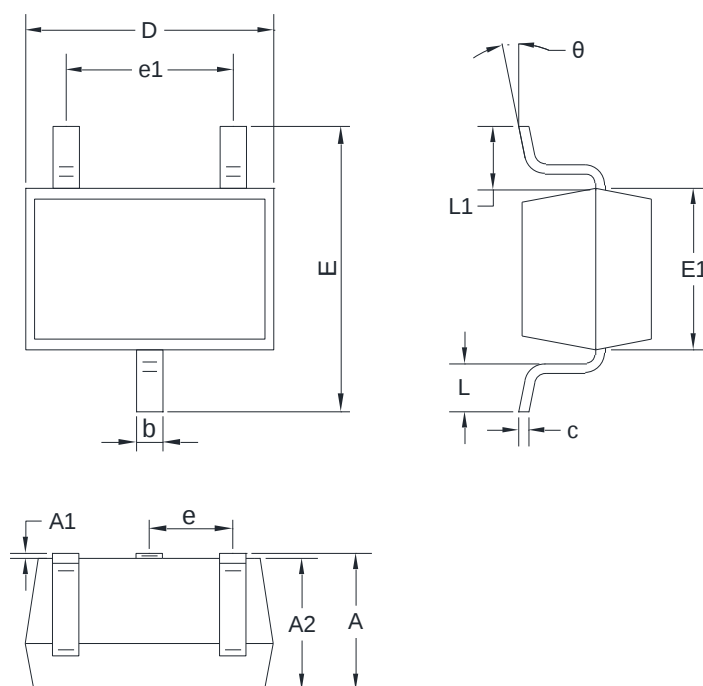


Typical Characteristics





SOT-323 Outline Drawing



Symbol	Millimeters		Symbol	Millimeters	
	Min	Max		Min	Max
A	0.90	1.10	E1	1.15	1.35
A1	0.00	0.10	e	0.65 TYP	
A2	0.90	1.00	e1	1.20	1.40
b	0.20	0.40	L	0.26	0.46
c	0.08	0.15	L1	0.525 REF	
D	2.00	2.20	θ	0°	8°
E	2.15	2.45			