



DW05MF-S ESD Protection Diode

Feature

- Uni-directional ESD protection of four lines
- 150Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 5V
- Junction Capacitance: 100pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 15kV$ contact $\pm 20kV$ air
- IEC 61000-4-5 (Lightning) 12A (8/20 μs)

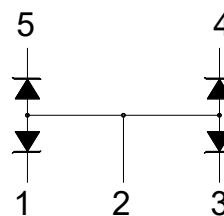
Application

- Cellular Handsets and Accessories
- Cordless Phones
- Personal Digital Assistants (PDA's)
- Notebooks & Handhelds
- Digital Cameras
- Portable Instrumentation

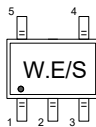
Mechanical Data

- 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
DW05MF-S	SOT-353		3000 pcs	7 inches



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P_{PK}	150	W
Peak Pulse Current (8/20 μs)	I_{PP}	12	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 20 ± 15	kV
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-40 to +125	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$
Lead temperature	T_L	260	$^{\circ}\text{C}$

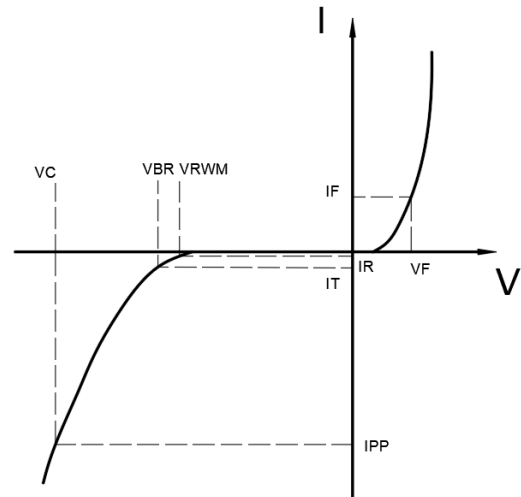
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
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	$I_{PP}=1\text{A}$; $t_p=8/20\mu\text{s}$		8	10	V
Clamping Voltage	V_C	$I_{PP} = 12\text{A}$; $t_p=8/20\mu\text{s}$		12	15	V
Junction Capacitance	C_J	IO-GND $V_R=0\text{V}$; $f=1\text{MHz}$		100	150	pF

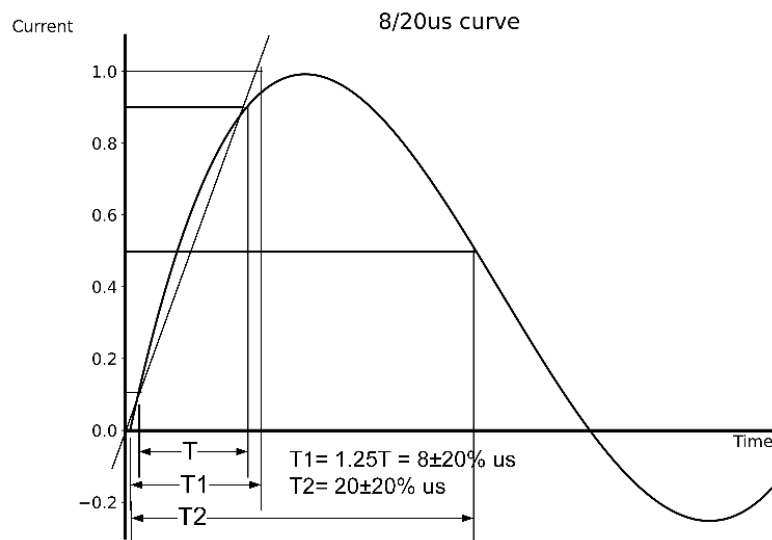


Electrical Parameters

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

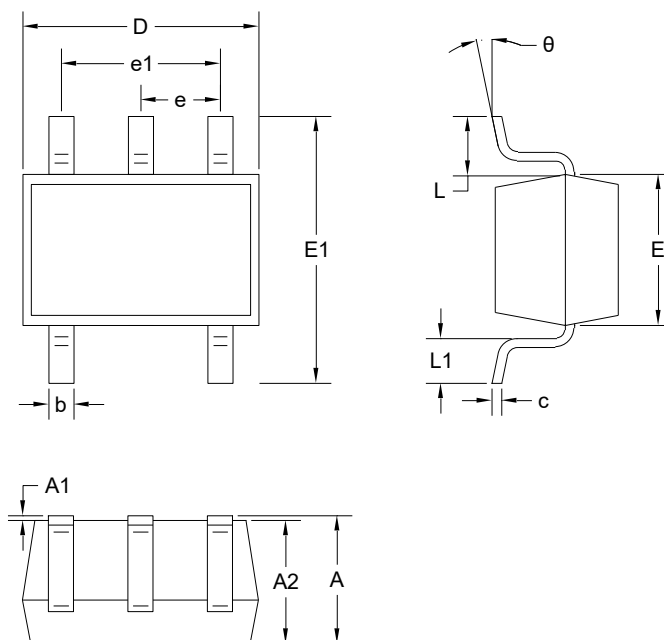


Typical Characteristics





SOT-353 Outline Drawing



Unit: mm

Symbol		A	A1	A2	b	c	D	θ
Spec	Min	0.85	0	0.85	0.15	0.08	2.00	0°
	Max	1.05	0.10	0.95	0.35	0.15	2.20	8°
Symbol		E	E1	e	e1	L	L1	-
Spec	Min	1.150	2.10	0.650	1.200	0.525	0.2600	-
	Max	1.350	2.40	REF	1.400	REF	0.4600	-