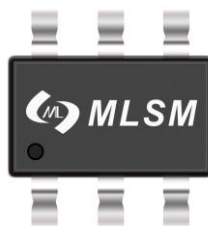


Features

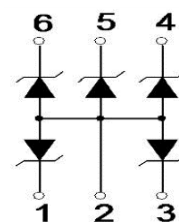
- Uni-directional ESD protection of five lines
- Low reverse stand-off voltage: 5V
- Low reverse clamping voltage
- Low leakage current

Application

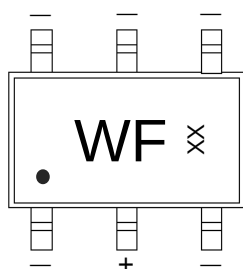
- Security Systems
- Network
- Notebook computers



SOT-363 top view



Schematic diagram



Marking and pin assignment

WF: Device code
 XX : Code
 Solid dot = Pin1 indicator



Halogen-Free

Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{\text{ESD}}^{(1)}$	IEC 61000-4-2 ESD Voltage	Air Model	± 25
		Contact Model	± 25
	JESD22-A114-B ESD Voltage	Per Human Body Model	± 16
		Machine Model	± 0.4
$P_{\text{PP}}^{(2)}$	Peak Pulse Power	60	W
$I_{\text{PP}}^{(2)}$	Peak Pulse Current	5	A
T_L	Lead Solder Temperature – Maximum (10 Second Duration)	260	$^{\circ}\text{C}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

(1).Device stressed with ten non-repetitive ESD pulses, Per channel(I/O to GND).

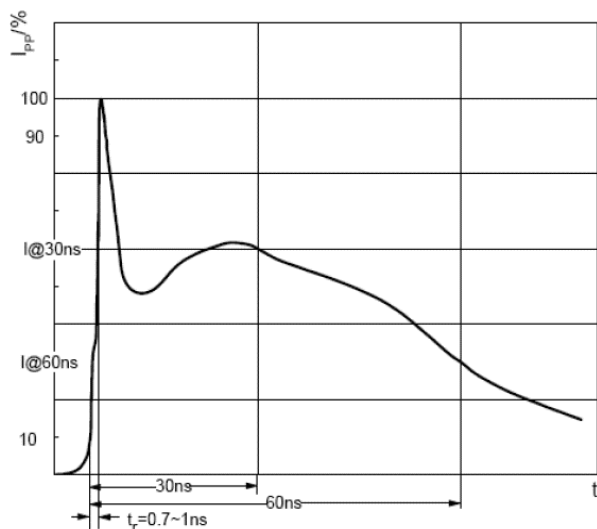
(2).Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
SMF05CT	SOT-363	WF	3,000	45,000	180,000	7"reel

ESD standards compliance
IEC61000-4-2 Standard

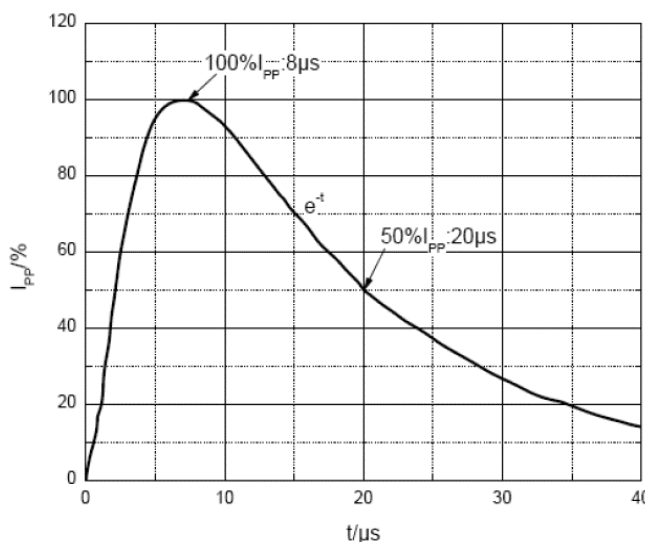
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15



ESD pulse waveform according to IEC61000-4-2

JESD22-A114-B Standard

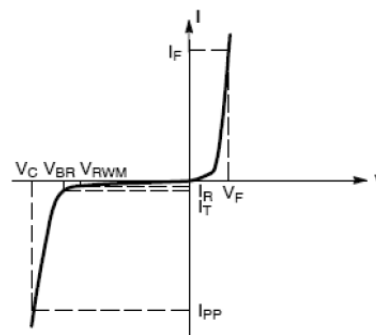
ESD Class	Human Body Discharge V
0	0~249
1A	250~499
1B	500~999
1C	1000~1999
2	2000~3999
3A	4000~7999
3B	8000~15999



8/20μs pulse waveform according to IEC 61000-4-5

ELECTRICAL PARAMETER

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



V-I characteristics for a uni-directional TVS

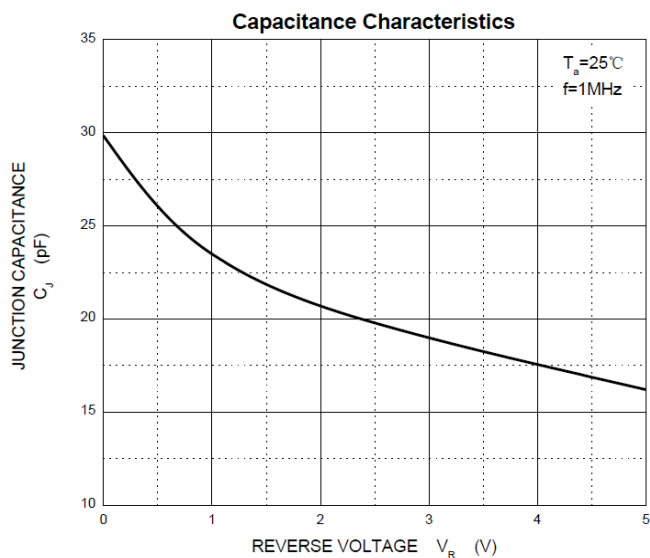
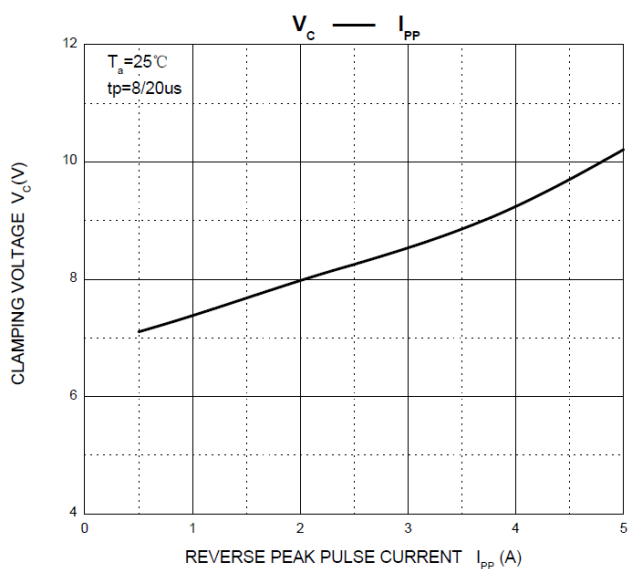
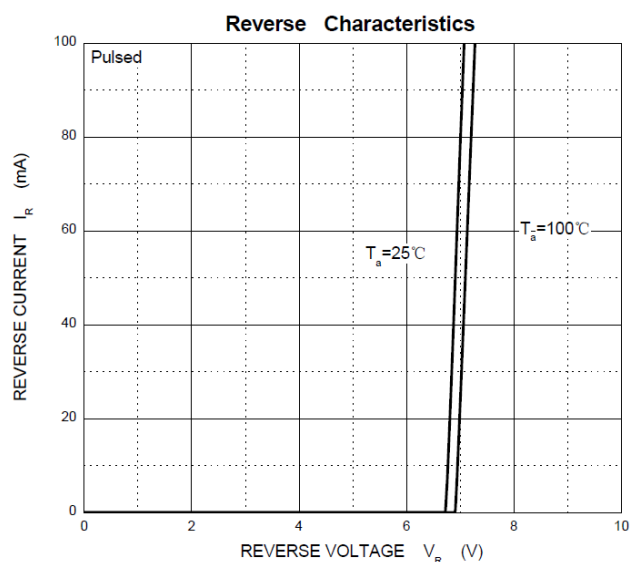
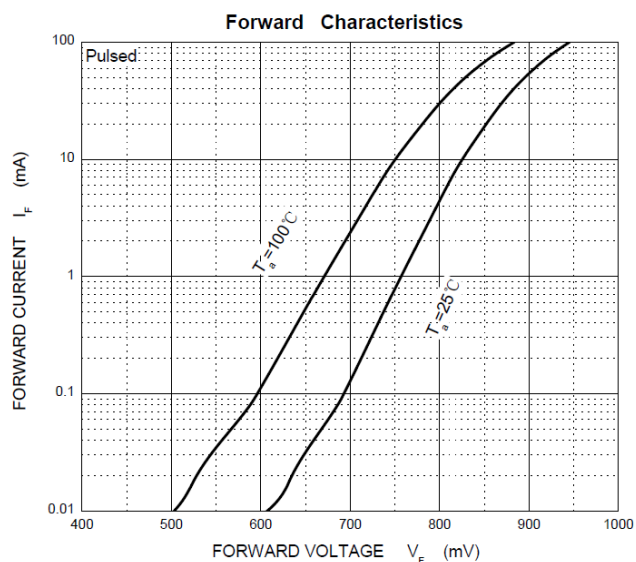
Electrical Characteristics ($T_J=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{RWM}^{(1)}$	Reverse stand off voltage		--	--	5	V
$V_{(BR)}$	Breakdown voltage	$I_T=1\text{mA}$	6	--	7.2	V
I_R	Reverse leakage current	$V_{RWM}=5\text{V}$	--	--	5	μA
V_F	Forward voltage	$I_F=10\text{mA}$	--	--	0.9	V
$V_C^{(2)}$	Clamping voltage	$I_{PP}=5\text{A}$	--	--	12	V
C_J	Junction capacitance	$V_R=0\text{V}, f=1\text{MHz}$	--	30	--	pF

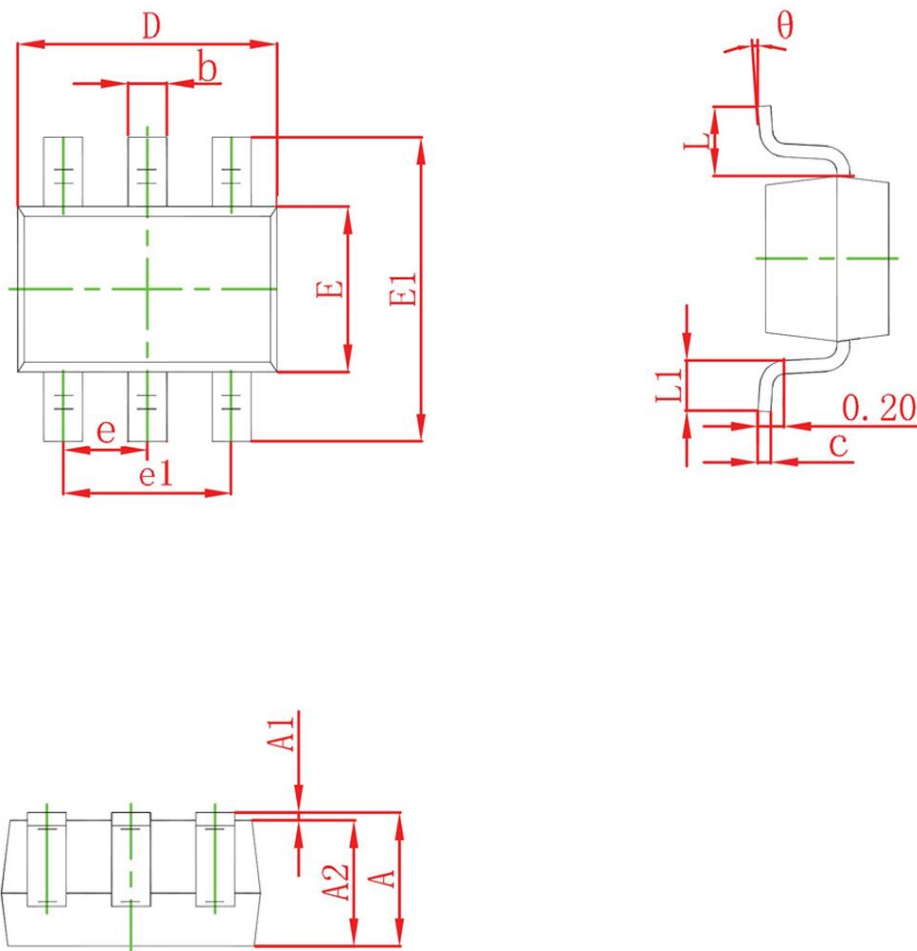
(1).Other voltages available upon request.

(2).Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5

Typical Operating Characteristics



SOT-363 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°