

General description

Designed to protect voltage sensitive electronic components from ESD and other transients. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD. The combination of small size, low capacitance, and high level of ESD protection makes them a flexible solution for applications such as HDMI, Display Port TM, and MDDI interfaces. It is designed to replace multiplayer varistors (MLV) in consumer equipments applications such as mobile phone, notebook, PAD, STB, LCD TV etc..

Features and benefits

- Uni-directional ESD protection of 4 lines
- IEC 61000-4-2 Level 4 ESD protection
- Low reverse stand-off voltage: 5V
- Low reverse clamping voltage
- Low leakage current
- Fast response time
- Small package saves board space
- RoHS compliant



SOT353

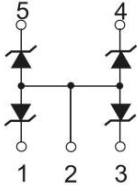
Application information

- Computers and peripheral
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics
- Other electronics equipments communication systems

Ordering information

Device	Package	Reel Size	Qty(PCS)
SMF05	SOT353	7 Inch	3000

Ordering information

Marking	Naming rule	Graphic symbol
E61	SMF05 ↓ 产品名称 product name	

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

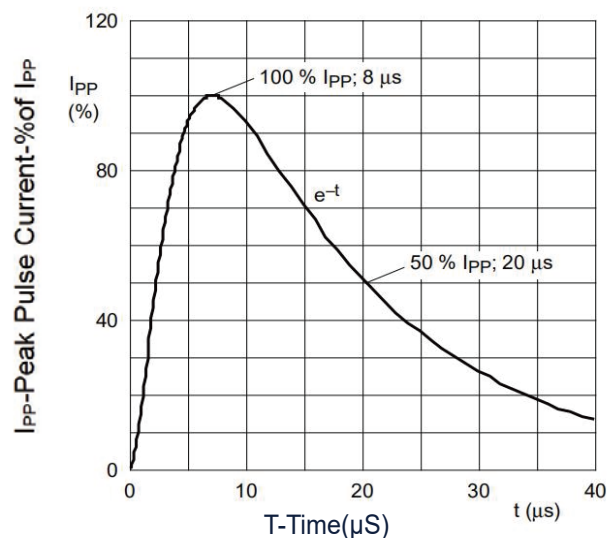
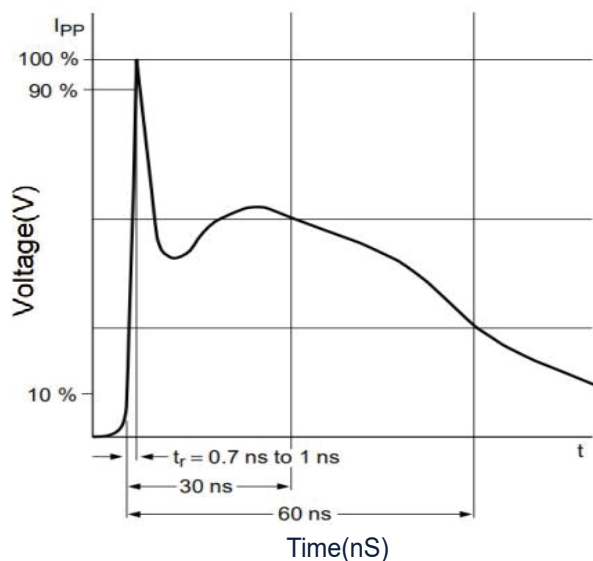
Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20μs)	P _{PPM}	60	W
Peak Pulse Current(tp = 8/20μs)	I _{PPM}	5	A
Maximum lead temperature for soldering during 10s	T _L	260	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C
Operating Temperature Range	T _{OP}	-40 to +125	°C
ESD voltage IEC 61000-4-2 (air discharge)	V _{ESD}	20	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V _{ESD}	15	kV

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

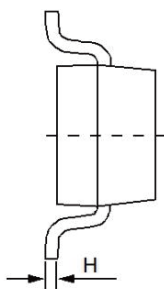
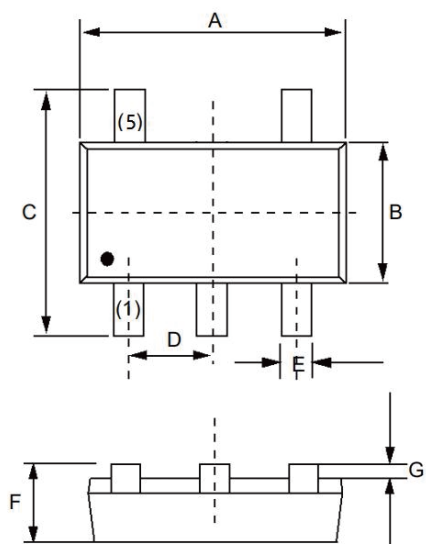
Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	V _{RWM}	--	--	5.0	V	
Breakdown Voltage	V _{BR}	6.0	--	7.5	V	I _T =1mA
Leakage Current I _{Leak}	I _R	--	--	100	nA	V _{RWM} =5V
Clamping Voltage	V _C	--	--	9.0	V	I _{PP} =1A, T _p =8/20μs
Clamping Voltage	V _C	--	--	12.0	V	I _{PP} =5A, T _p =8/20μs
Junction Capacitance	C _J	--	30	35	pF	V _R =0V, f=1MHz



Typical Characteristics



SOT353 Package Outline Dimensions



Symbol	Dimensions In Millimet	
	Min	Max
A	1.8	2.2
B	1.10	1.40
C	2.10	2.50
D	0.65BSC	
E	0.15	0.35
F	0.80	1.1
G	0.00	0.12
H	0.05	0.22