

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

SMF05CT1G-MS

Product specification

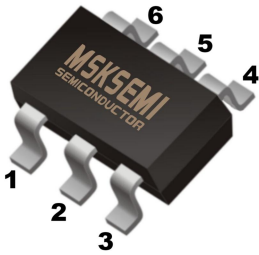
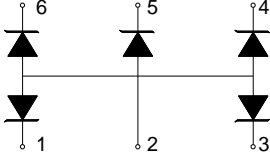

Features

- IEC 61000-4-2 Level 4 ESD Protection
-±12kV Contact Discharge
-±17kV Air Discharge
- 100W Peak pulse Power (8/20us)
- Low clamping voltage
- Working voltage: 5V
- Low leakage current
- RoHS compliant
- Protecting 5 unidirectional lines
- Capacitance: 100pF Typ.

Applications

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

Reference News

SOT-363	PIN Configuration	Marking
		

Pin Configuration and Functions

Pin	Name	Description
1	IO1	Connect to I/O
2	GND	Connect to GND
3	IO2	Connect to I/O
4	IO3	Connect to I/O
5	IO4	Connect to I/O
6	IO5	Connect to I/O

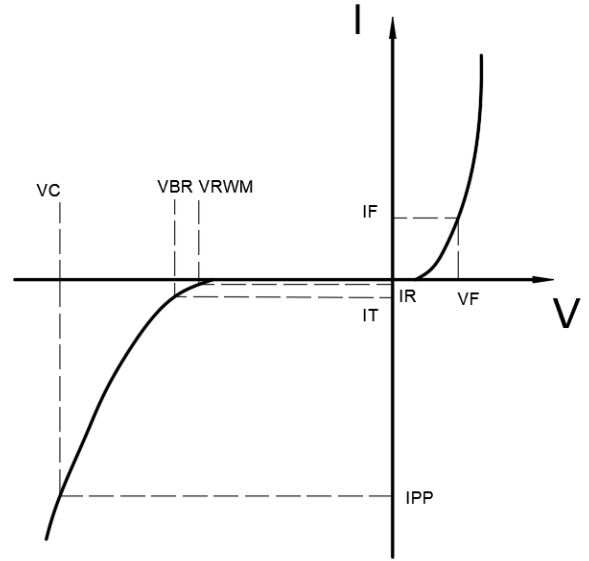
Absolute Maximum rating Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P _{pk}	-	100	W
Peak pulse current (tp=8/20us)@25°C	I _{PP}		8	A
ESD (IEC61000-4-2 air discharge) @25°C	V _{ESD}	-	±17	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V _{ESD}	-	±12	kV
Junction temperature	T _J	-	150	°C
Operating temperature	T _{OP}	-40	125	°C
Storage temperature	T _{STG}	-55	150	°C
Lead temperature	T _L	-	260	°C

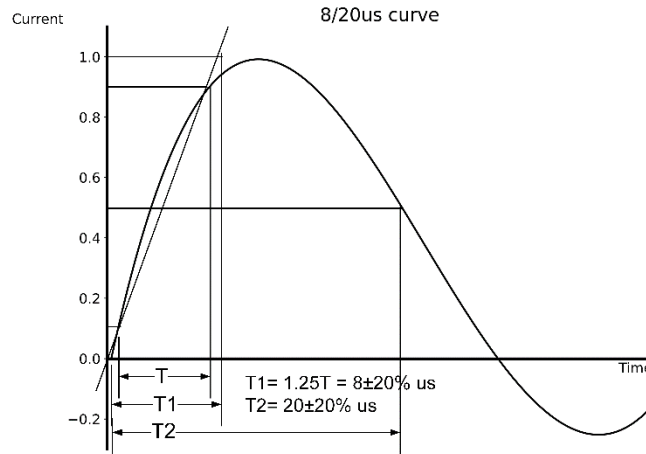
Electrical Characteristics At TA = 25°C unless otherwise noted

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V _{RWM}				5	V
Reverse Breakdown Voltage	V _{BR}	IT=1mA	6			V
Reverse Leakage Current	I _R	V _{RWM} =5V			1	uA
Clamping Voltage	V _C	I _{PP} =1A; tp=8/20us		9.5		V
Clamping Voltage	V _C	I _{PP} =8A; tp=8/20us		15		V
Junction Capacitance	C _J	I/O to GND; VR=0V; f=1MHz		100		pF

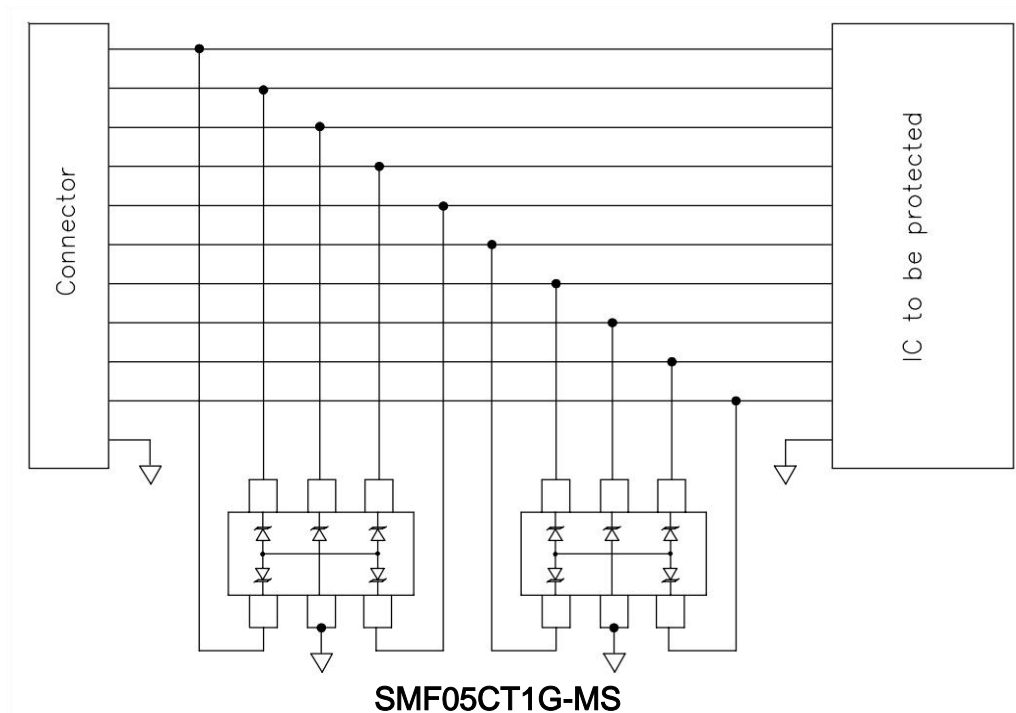
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F



Typical Characteristic

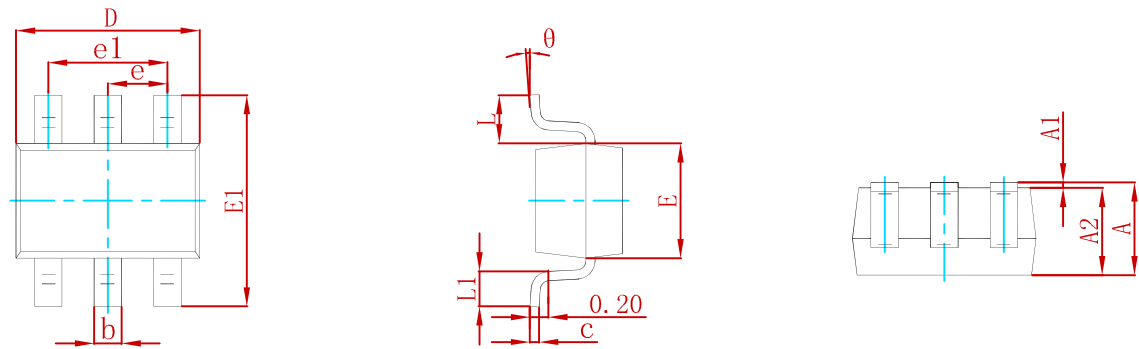


Typical Application



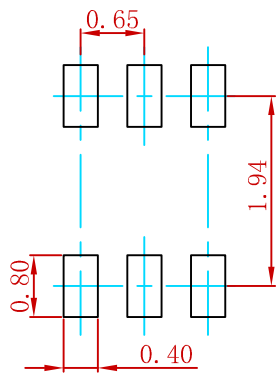
SMF05CT1G-MS

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		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	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Order information

Orderable Device	Package	Packing Option
SMF05CT1G-MS	SOT-363	3000PCS

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