



### FEATURES

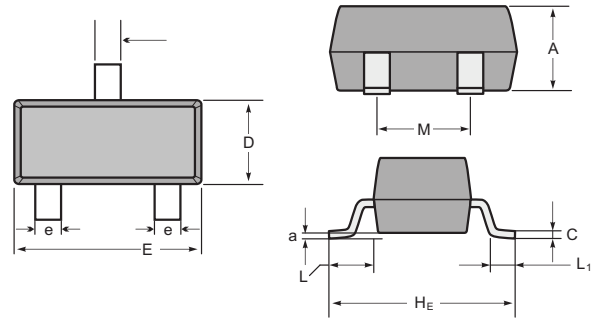
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- 2 Unidirectional transil functions
- Low leakage current:IR max< 20  $\mu$ A at VRM
- 300W peak pulse power(8/20 $\mu$ s)
- Transient protection for data lines as per IEC61000-4-2(ESD)  $\pm$ 30KV(air)  $\pm$ 30KV(contact)  
IEC61000-4-5(Lightning) see IPPM below

### APPLICATIONS

- Computers
- Printers
- Communication systems

### Ordering information

Order code	Package	Making
SM05T1G	SOT-23	05C



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L <sub>1</sub>	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

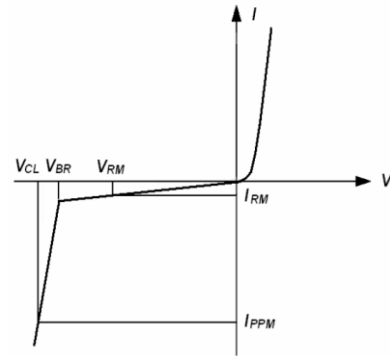
### ABSOLUTE RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak Pulse Power (tp = 8/20 $\mu$ s)	PPP	300	W
Lead Solder Temperature - Maximum (10 Second Duration)	TL	260	°C
Storage Temperature Range	Tstg	-55~+150	°C
Operating Temperature Range	Top	-40~+125	°C
Maximum junction temperature	Tj	150	°C
Electrostatic discharge	ESD		kV
IEC61000-4-2 air discharge		$\pm$ 30	
IEC61000-4-2 contact discharge		$\pm$ 30	

# SM05T1G

## ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Symbol	Parameter
VRM	Stand-off voltage
VBR	Breakdown voltage
VCL	Clamping voltage
IRM	Leakage current
IPPM	Peak pulse current



## ELECTRICAL CHARACTERISTICS (Ta= 25°C)

DEVICE	VRWM (V)	IR (μA) @VRWM	VBR (V) @IT (Note 1)	IT (mA)	VC (V) @IPP=1A	VC (V) @IPP=5A	IPP(A) @tp=8/20μs	C (pF) f=1MHz
	Max.	Max.	Min.		Max.	Max.	Max.	Max.
SM5T1G	5	5	6	1	9.8	12.5	17	220

1. 8/20 waveform used.

## RATING AND CHARACTERISTIC CURVES (SM05T1G)

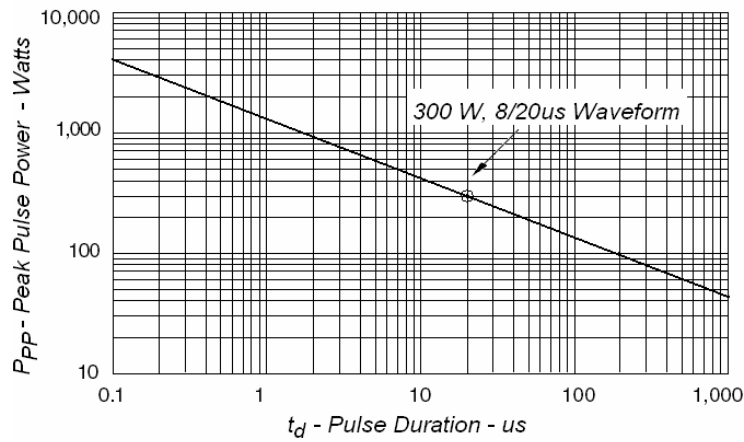


Fig1. Peak Pulse Power VS Pulse Time

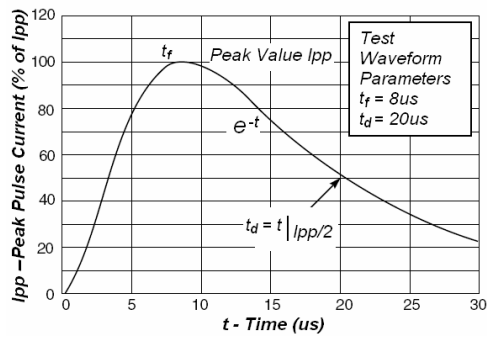


Fig2. Pulse Waveform

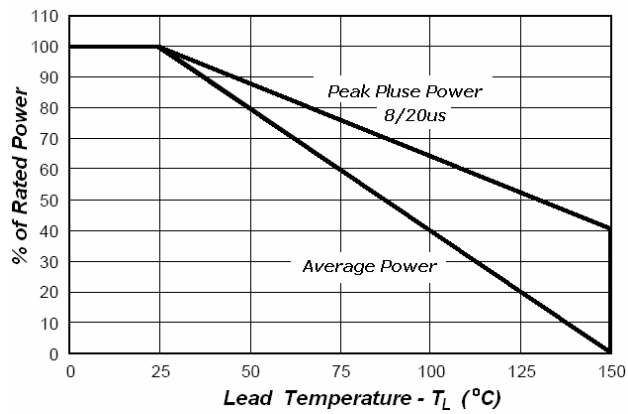


Fig3. Power Derating