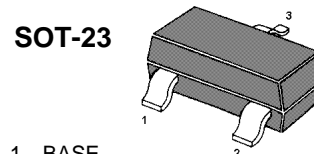


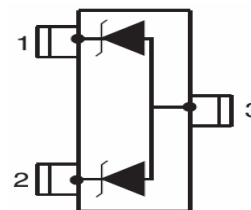
## Dual Transient Voltage Suppressors for ESD Protection

### Features

- SOT-23 Package
- 2 Unidirectional Transil functions
- Peak Power Dissipation 300W @8 x 20 us Pulse
- Low Leakage
- Fast Response Time < 1 ns
- Protects I/O Port
- ESD Protection to IEC 61000-4-2 Level 4,15KV(Air), 8KV(Contact)
- 16KV Human Body Model ESD Requirements
- RoHS Compliant in Lead-Free Versions



1. BASE
2. EMITTER
3. COLLECTOR



### Applications

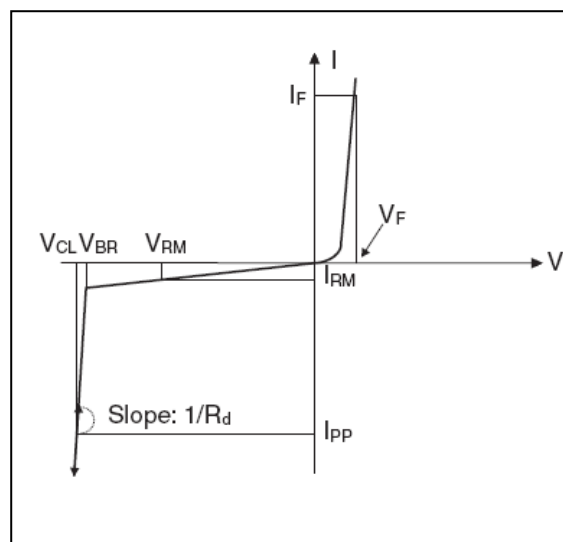
- Computers
- Printers
- Communication Systems

### Absolute Maximum Ratings

Symbol	Parameter	Value	Units
$P_{PP}$	Peak Pulse Power ( $t_p = 8/20\mu s$ )	300	W
$T_L$	Maximum lead temperature for soldering during 10s	260	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55 to +15	$^{\circ}C$
$T_{op}$	Operating Temperature Range	-40 to +125	$^{\circ}C$
$T_j$	Maximum junction temperature	150	$^{\circ}C$
$V_{PP}$	Electrostatic discharge		
	MIL STD 883C -Method 3015-6	25	kv
	IEC61000-4-2 air discharge	16	
IEC61000-4-2 contact discharge	9		

### Electrical Characteristics

Symbol	Parameter
$V_{RM}$	Stand-off voltage
$V_{BR}$	Breakdown voltage
$V_{CL}$	Clamping voltage
$I_{RM}$	Leakage current
$I_{PP}$	Peak pulse current
$\alpha T$	Voltage temperature coefficient
$V_F$	Forward voltage drop
C	Capacitance
$R_d$	Dynamic resistance

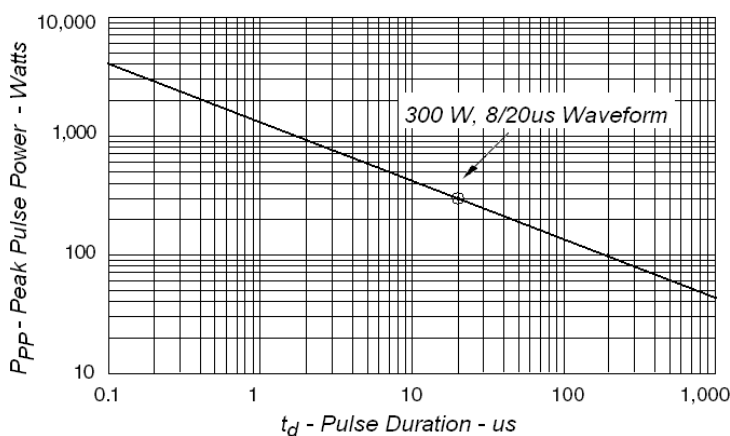


### Electrical Characteristics

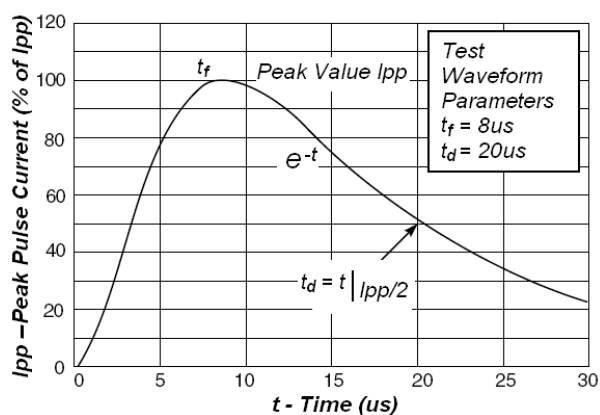
Ratings at 25°C ambient temperature unless otherwise specified.

Part Numbers	Marking	Rated Stand-off Voltage	Maximum Leakage Current	Minimum Breakdown Voltage	Maximum Clamping Voltage		Maximum Pulse Peak Current	Maximum Capacitance
			@ $V_{RM}$	1mA	1A <sup>1)</sup>	5A <sup>1)</sup>	tp=8/20us	0v, 1MHz
		$V_{RM}$	$I_{RM}$	$V_{BR}$	$V_{CL}$		$I_{PPM}$	C
		V	$\mu A$	V	V	V	A	pF
KGSOT05C	05C	5.0	1.0	6.0	9.8	12.5	17	220

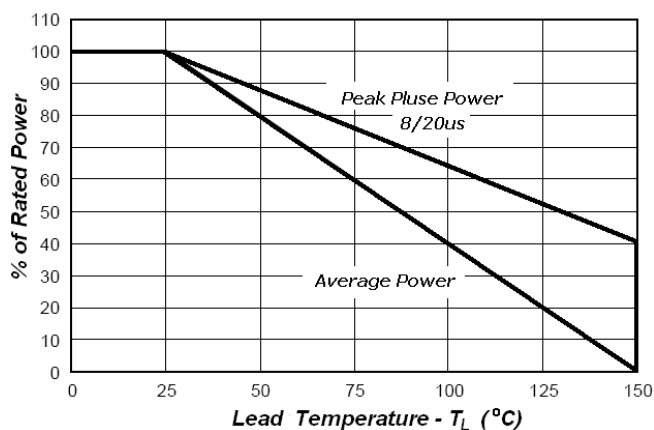
### Typical Characteristics



**Fig1. Peak Pulse Power VS Pulse Time**



**Fig2. Pulse Waveform**

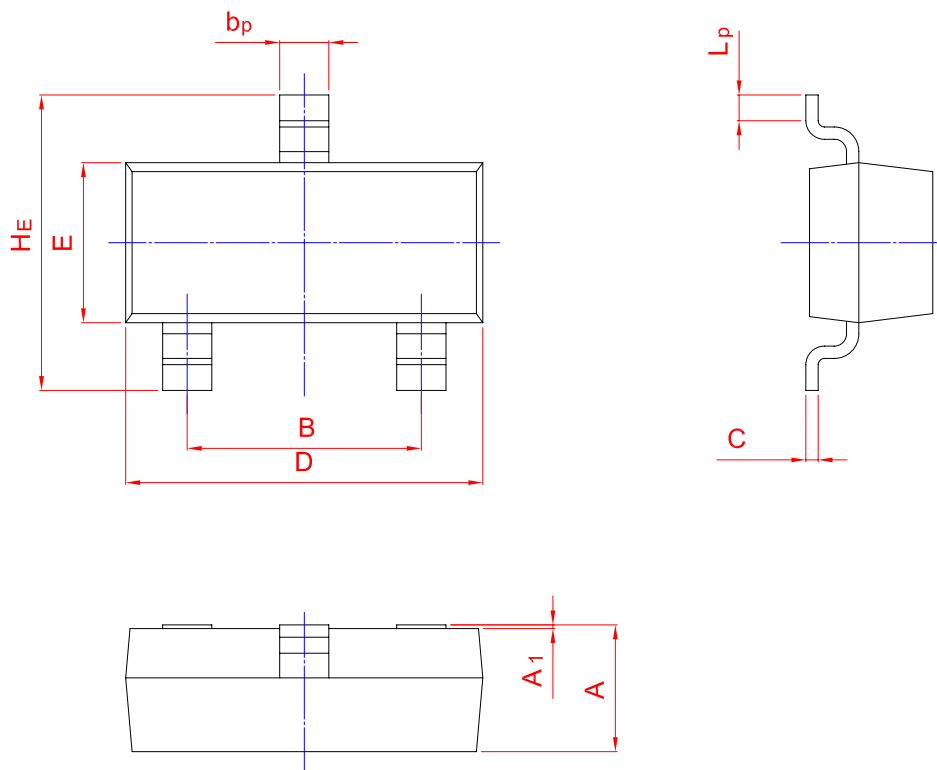
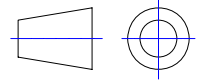


**Fig3. Power Derating**

**PACKAGE OUTLINE**

Plastic surface mounted package; 3 leads

**SOT-23**



UNIT	A	B	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20