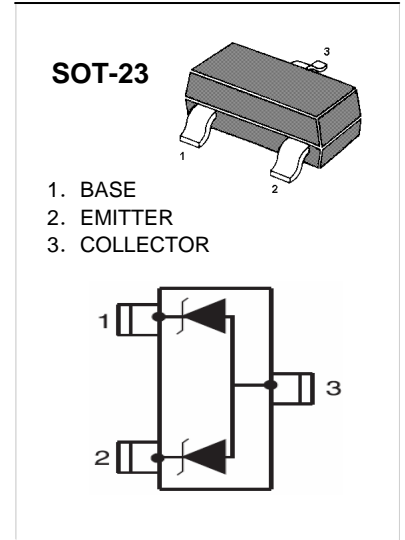


## Features

- 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

## Applications

- Computers
- Printers
- Communication Systems

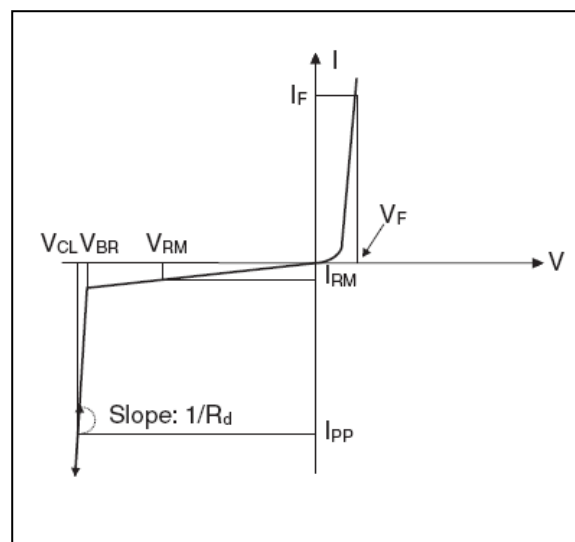


## Absolute Maximum Ratings

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



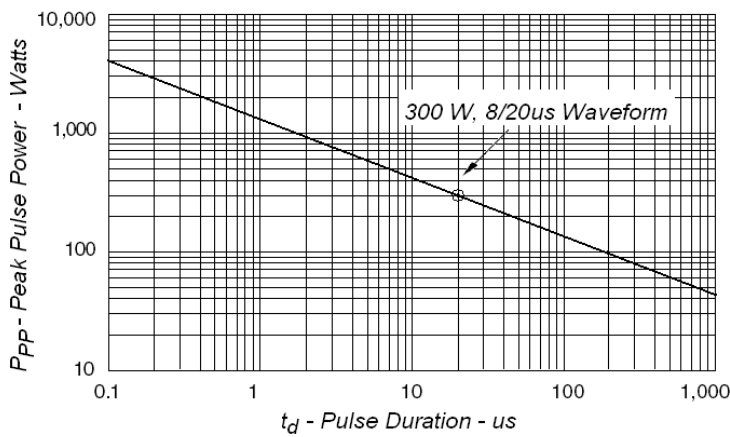
## Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

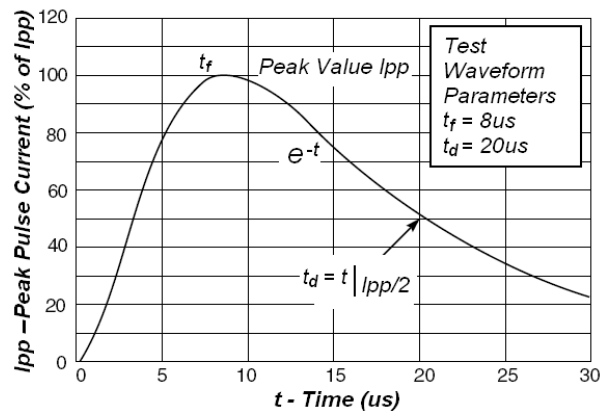
Part Numbers	Marking	Rated Stand-off Voltage	Maximum Leakage Current	Minimum Breakdown Voltage	Maximum Clamping Voltage		Maximum Pulse Peak Current	Maximum Capacitance
			@ $V_{RM}$	1mA	1A <sup>1)</sup>	5A <sup>1)</sup>	$t_p=8/20\mu s$	0v, 1MHz
		$V_{RM}$	$I_{RM}$	$V_{BR}$	$V_{CL}$		$I_{PPM}$	C
		V	$\mu A$	V	V	V	A	pF
KGSOT04C	04C	4.0	3.0	5.0	8.5	10.5	17	300
KGSOT05C	05C	5.0	1.0	6.0	9.8	12.5	17	220
KGSOT08C	08C	8.0	1.0	8.5	13.4	15.0	15	190
KGSOT12C	12C	12.0	1.0	13.3	19.0	28.0	12	150
KGSOT15C	15C	15.0	1.0	16.7	24.0	35.0	10	140
KGSOT24C	24C	24.0	1.0	26.7	43.0	60.0	5	83
KGSOT36C	36C	36.0	1.0	40	60.0	75.0	2	80

1).8/20 waveform used. (see fig2.)

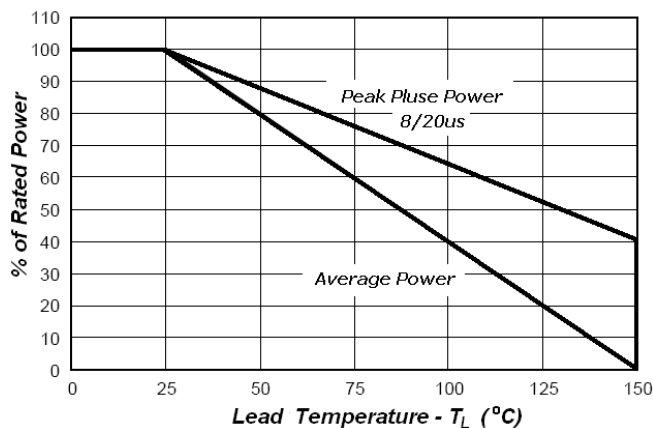
## Typical Characteristics



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



**Fig2. Pulse Waveform**

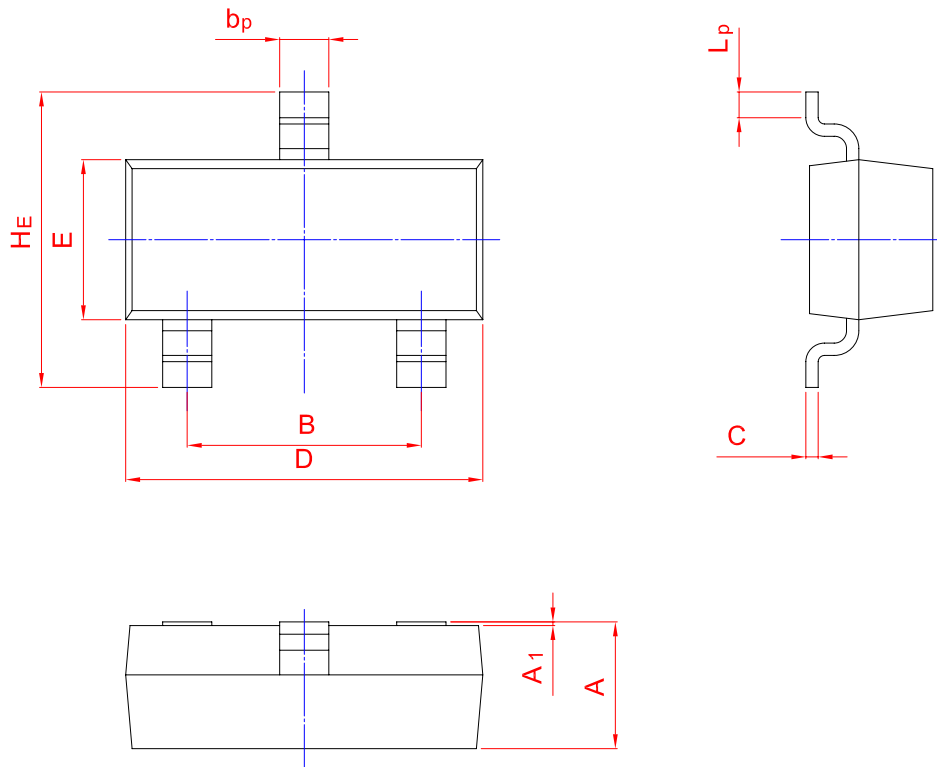


**Fig3. Power Derating**

**PACKAGE OUTLINE**

Plastic surface mounted package; 3 leads

**SOT-23**



UNIT	A	B	bp	C	D	E	HE	A1	Lp
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

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