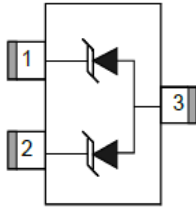


**SOT-23**

**Features**

300Watts peak pulse power( $t_p=8/20\mu s$ )  
 Low clamping voltage  
 Low leakage current  
 Glass passivated junction  
 Low capacitance( $C_j=120pF$  typ)  
 IEC 61000-4-2  $\pm 30kV$  contact  $\pm 30kV$  air  
 Halogen free and RoHS compliant

**Mechanical Data**

CASE: SOT23 Molded Plastic  
 Molding compound flammability rating: UL 94V-0  
 Mounting Position:Any

**Making Code & Ordering information**

	<b>Ordercode</b>	<b>Package</b>	<b>Base qty</b>	<b>Deliverymode</b>
	PESD5V2S2UT-K	SOT-23	3000	Tape and reel

**Maximum Ratings & Thermal Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{pp}$	300	Watts
Peak Pulse Current ( $t_p=8/20\mu s$ )(note1)	$I_{pp}$	20	A
ESD per IEC 61000-4-2(Air)	$V_{ESD}$	30	kV
ESD per IEC 61000-4-2(Contact)		30	
Lead Soldering Temperature	$T_L$	260(10seconds)	°C
Junction Temperature	$T_J$	-55 to + 125	°C
Storage Temperature	$T_{stg}$	-55 to + 125	°C

**Electrical Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified).

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6.0	7.0	8.5	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5V, T=25^\circ C$		0.5	1	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			20	A
Clamping Voltage	$V_C$	$I_{PP}=10A, t_p=8/20\mu s$			12	V
		$I_{PP}=20A, t_p=8/20\mu s$			16	V
Junction Capacitance	$C_j$	$V_R=0V, f=1MHz$ (pin1、pin2 to pin3)		120		pF

## Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

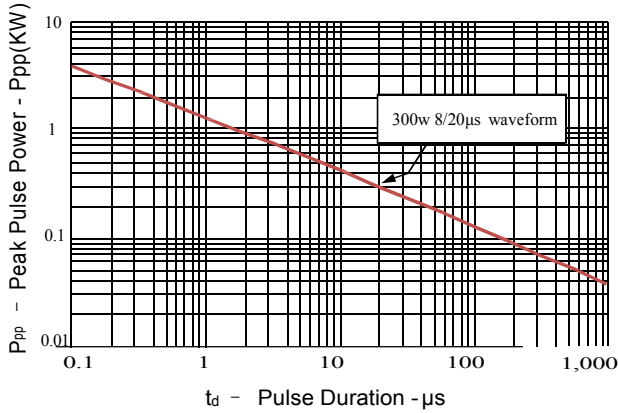


Figure 1: Peak Pulse Power vs. Pulse Time

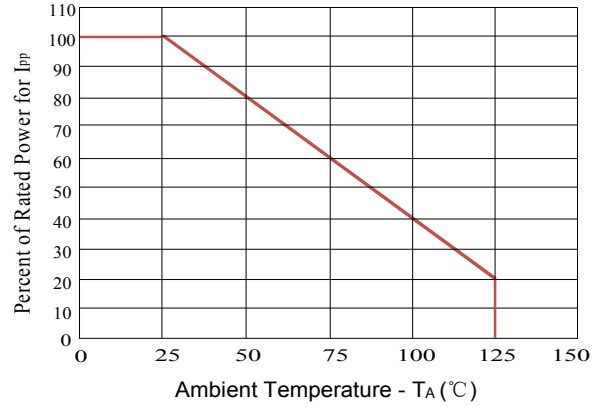


Figure 2: Power Derating Curve

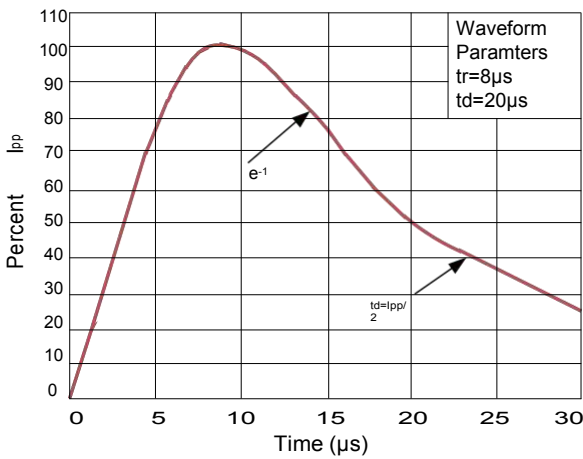


Figure 3: Pulse Waveform

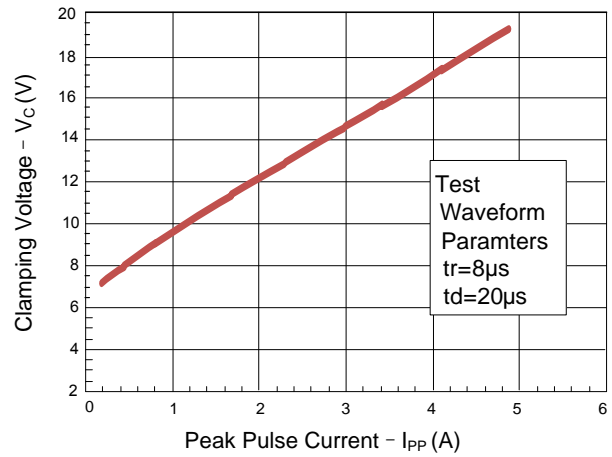
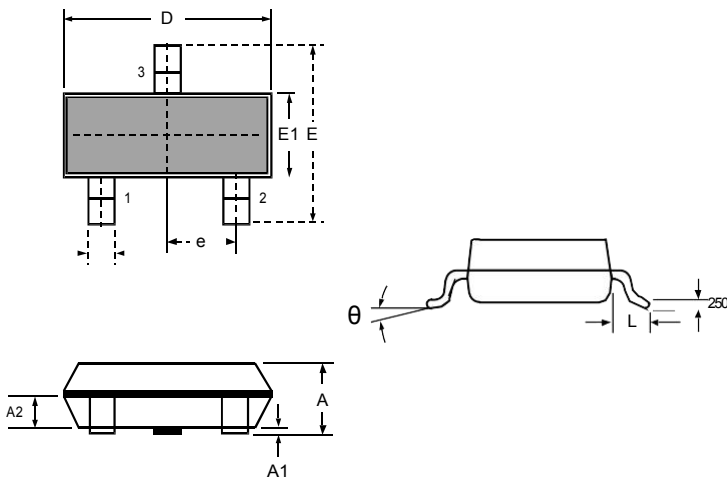


Figure 4: Clamping Voltage vs. Ipp

## Package Outline Dimensions: SOT-23



### DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
θ	0	8°	0	8°

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