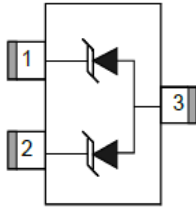


SOT-23

Features

- 60Watts peak pulse power($t_p=8/20\mu s$)
- Low clamping voltage
- Low leakage current
- Glass passivated junction
- Low capacitance($C_j=0.7pF$ typ)
- IEC 61000-4-2 $\pm 15KV$ contact $\pm 15KV$ 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

	Ordercode	Package	Base qty	Deliverymode
	PESD5V0X1BT-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}	45	Watts
Peak Pulse Current ($t_p=8/20\mu s$)(note1)	I_{pp}	3.5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 15	kV
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	7	8	V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^\circ C$		0.5	1	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			3.5	A
Clamping Voltage	V_C	$I_{pp}=3.5A, t_p=8/20\mu s$		12	15	V
Junction Capacitance	C_j	$V_R=0V, f=1MHz$		0.7	0.8	pF

Ratings and Characteristic Curves

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

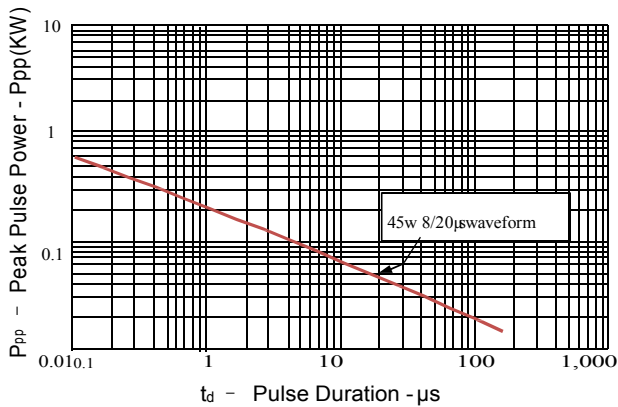


Figure 1: Peak Pulse Power vs. Pulse Time

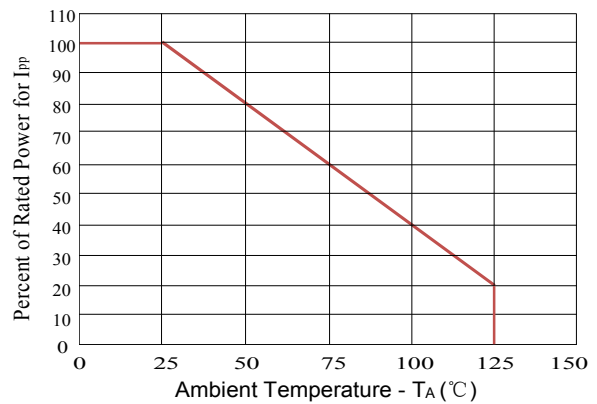


Figure 2: Power Derating Curve

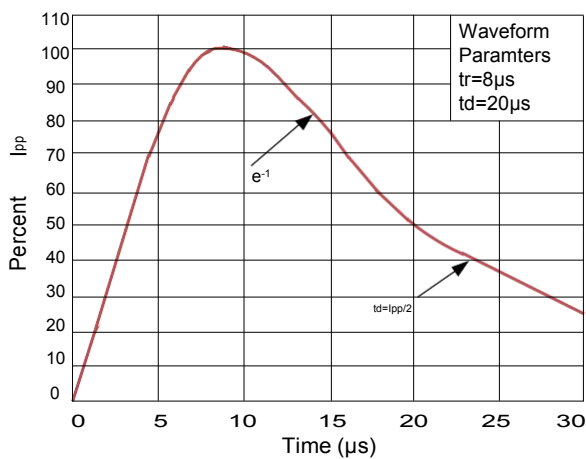


Figure 3: Pulse Waveform

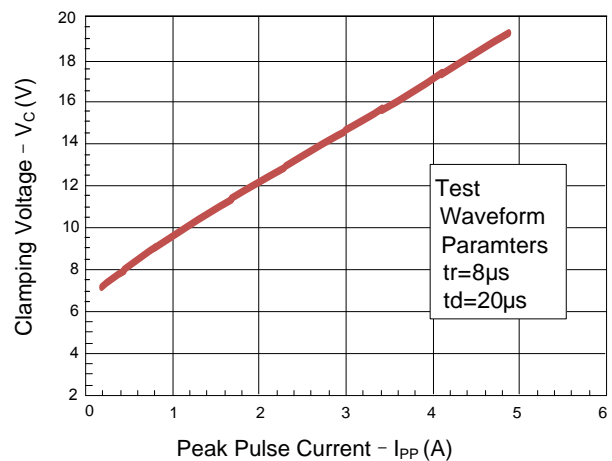
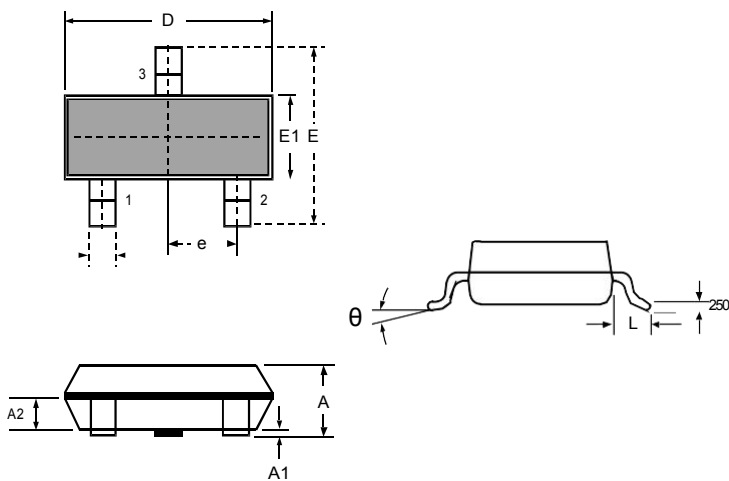


Figure 4: Clamping Voltage vs. Ipp

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°