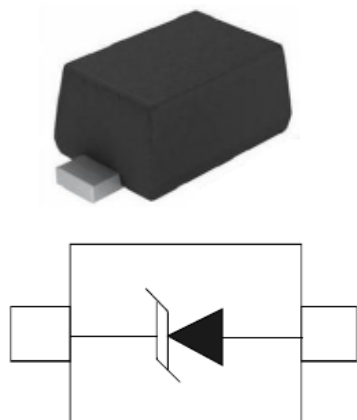


### SOD-523



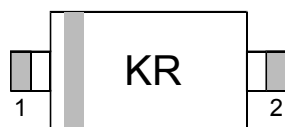
### Features

280Watts peak pulse power( $t_p=8/20\mu s$ )  
 Low clamping voltage  
 Low leakage current  
 Glass passivated junction  
 Unidirectional configurations  
 IEC 61000-4-2  $\pm 30KV$  contact  $\pm 30KV$  air  
 Halogen free and RoHS compliant

### Mechanical Data

CASE: SOD-523 Molded Plastic  
 Molding compound flammability rating: UL 94V-0  
 Mounting Position:Any

### Making Code & Ordering information



| Ordercode     | Package | Base qty | Deliverymode |
|---------------|---------|----------|--------------|
| PESD24VS1UB-K | SOD523  | 5000     | Tape andreel |

### Maximum Ratings & Thermal Characteristics

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

| Rating                                                         | Symbol    | Value          | Units |
|----------------------------------------------------------------|-----------|----------------|-------|
| Peak Pulse Power ( $t_p = 8/20\mu s$ )                         | $P_{PP}$  | 280            | Watts |
| Peak Pulse Current ( $t_p = 8/20\mu s$ ) (note1)               | $I_{pp}$  | 5              | A     |
| ESD per IEC 61000-4-2 (Air)<br>ESD per IEC 61000-4-2 (Contact) | $V_{ESD}$ | 30<br>30       | kV    |
| Lead Soldering Temperature                                     | $T_L$     | 260(10seconds) | °C    |
| Junction Temperature                                           | $T_J$     | -55 to + 150   | °C    |
| Storage Temperature                                            | $T_{stg}$ | -55 to + 150   | °C    |

### Electrical Characteristics

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

| Parameter                 | Symbol    | Conditions                    | Min  | Typical | Max  | Units   |
|---------------------------|-----------|-------------------------------|------|---------|------|---------|
| Reverse Stand-Off Voltage | $V_{RWM}$ |                               |      |         | 24.0 | V       |
| Reverse Breakdown Voltage | $V_{BR}$  | $I_T=1mA$                     | 26.7 |         |      | V       |
| Reverse Leakage Current   | $I_R$     | $V_{RWM}=24.0V, T=25^\circ C$ |      |         | 0.5  | $\mu A$ |
| Clamping Voltage          | $V_C$     | $I_{PP}=5A, t_p=8/20\mu s$    |      | 55      | 60   | V       |
| Junction Capacitance      | $C_j$     | $V_R = 0V, f = 1MHz$          |      | 30      |      | pF      |

## Ratings and Characteristic Curves

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

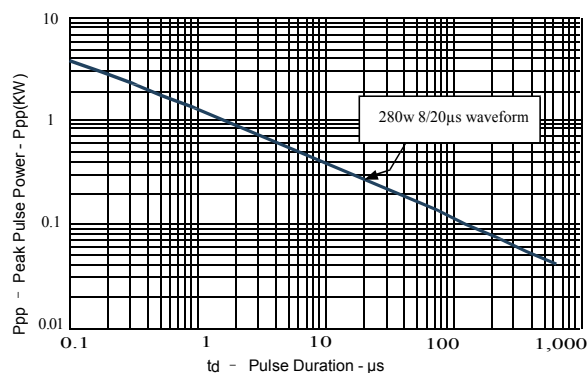


Figure 1: Peak Pulse Power vs. Pulse Time

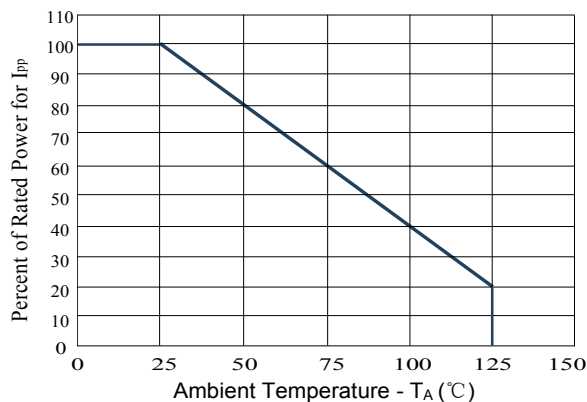


Figure 2: Power Derating Curve

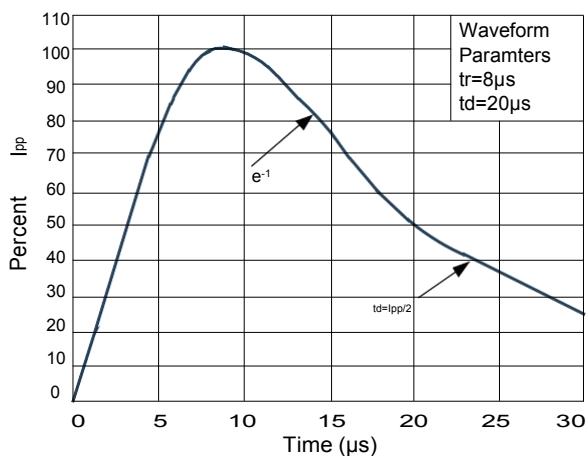


Figure3: Pulse Waveform

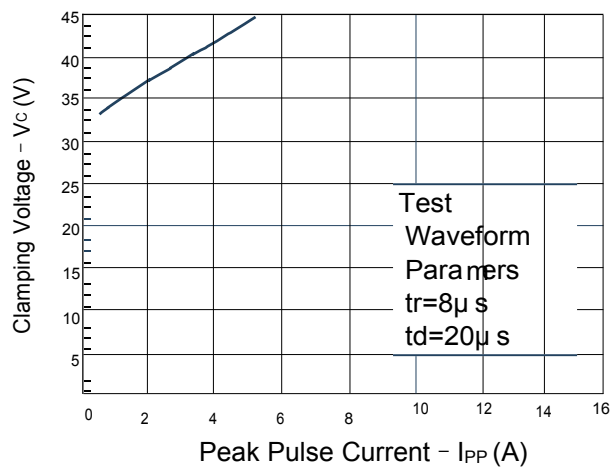
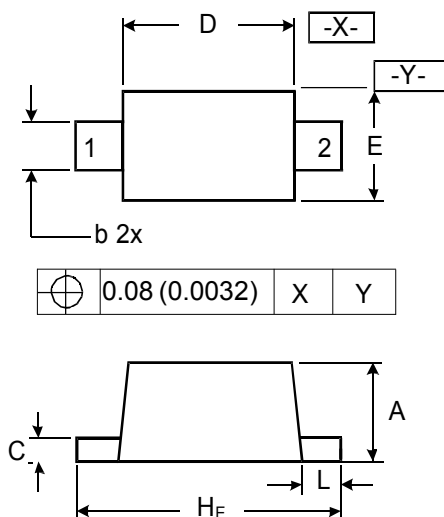


Figure 4: Clamping Voltage vs. Ipp

## Package Outline Dimensions: SOD-523



### DIMENSIONS

| SYMBOL | MILLIMETER |      | INCHES |        |
|--------|------------|------|--------|--------|
|        | MIN        | MAX  | MIN    | MAX    |
| A      | 0.50       | 0.70 | 0.020  | 0.028  |
| b      | 0.25       | 0.35 | 0.010  | 0.014  |
| C      | 0.07       | 0.20 | 0.0028 | 0.0079 |
| D      | 1.10       | 1.30 | 0.043  | 0.051  |
| E      | 0.70       | 0.90 | 0.028  | 0.035  |
| HE     | 1.50       | 1.70 | 0.059  | 0.067  |
| L      | 0.15       | 0.25 | 0.006  | 0.010  |