

## Description

The 8KP series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

## Features

- Halogen free and RoHS compliant
- Glass passivated junction
- Low incremental surge resistance
- Excellent clamping capability
- 8000W peak pulse power capability at 10/1000μs waveform, repetition rate (duty cycle): 0.05%
- Fast response time
- Typical  $I_R$  less than 2μA above 22V devices
- High Temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs (2.3kg) tension
- Plastic package has underwriters laboratory flammability 94V-0
- Meet MSL level1, per J-STD-020
- IEC-61000-4-2 ESD 30kV(Air), 30kV (Contact)
- Unit Weight: 2.1g

## Applications

TVS components are ideal for the protection of I/O Interfaces, VCC bus and other vulnerable circuits used in telecom, computer, Industrial and consumer electronic applications.

## Maximum Ratings and Characteristics ( $T_A=25^\circ\text{C}$ )

Rating	Symbol	Value
Peak pulse power dissipation at 10/1000μs waveform (Note1, Fig.1)	$P_{PPM}$	8000W
Peak pulse current of at 10/1000μs waveform (Note 1)	$I_{PPM}$	See Table(A)
Steady state power dissipation at $T_L=75^\circ\text{C}$ (Fig.3)	$P_{M(AV)}$	8.0W
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load, (JEDEC Method) (Note2, Fig.4)	$I_{FSM}$	400A
Operating junction and Storage Temperature Ranges	$T_J, T_{STG}$	-55°C to +150°C
Typical thermal resistance junction to lead	$R_{\theta JL}$	8°C/W
Typical thermal resistance junction to ambient	$R_{\theta JA}$	40°C/W

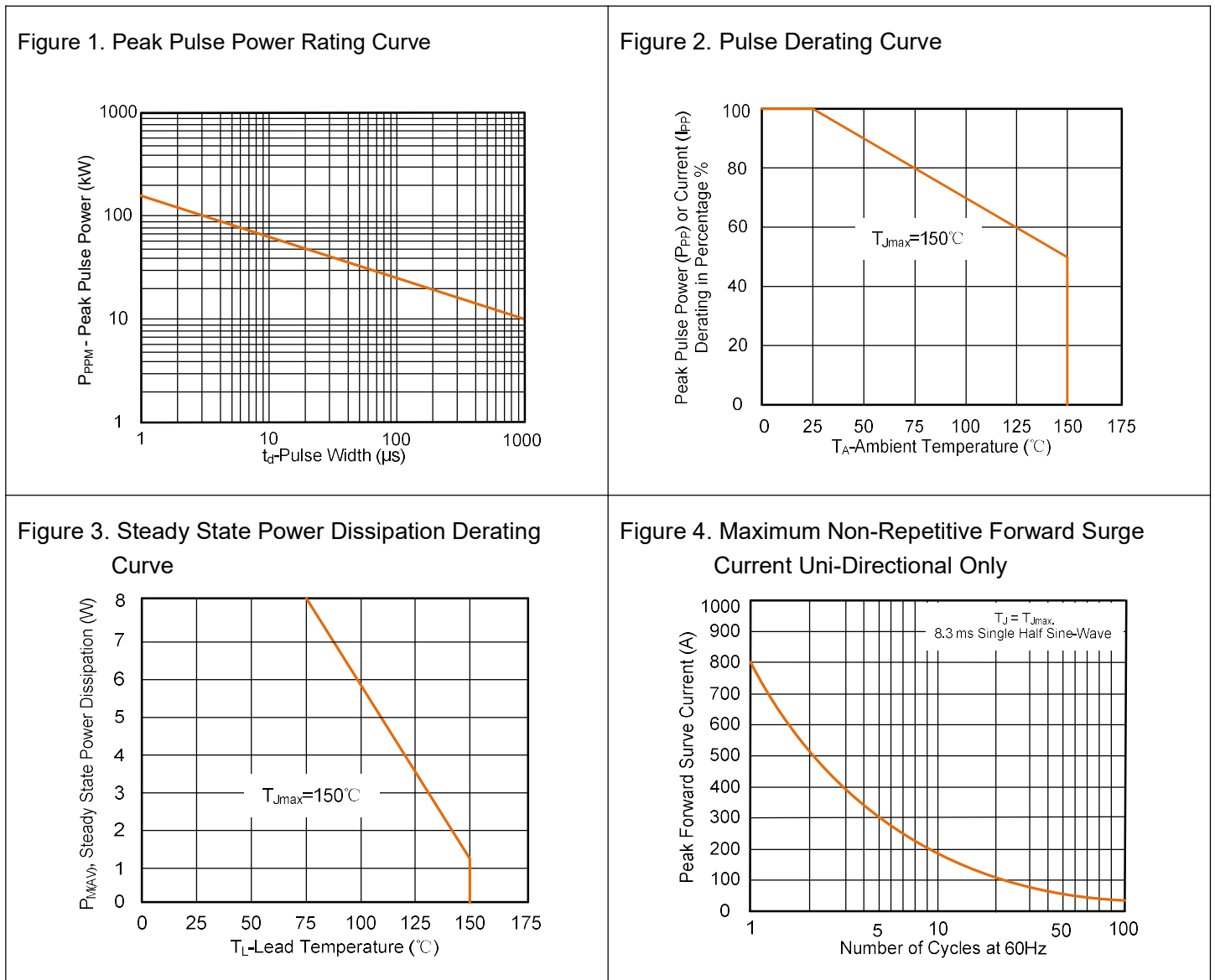
Notes:1. Non-repetitive current pulse, and derating above  $T_A=25^\circ\text{C}$  per Fig.2.

2. 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minutes maximum.

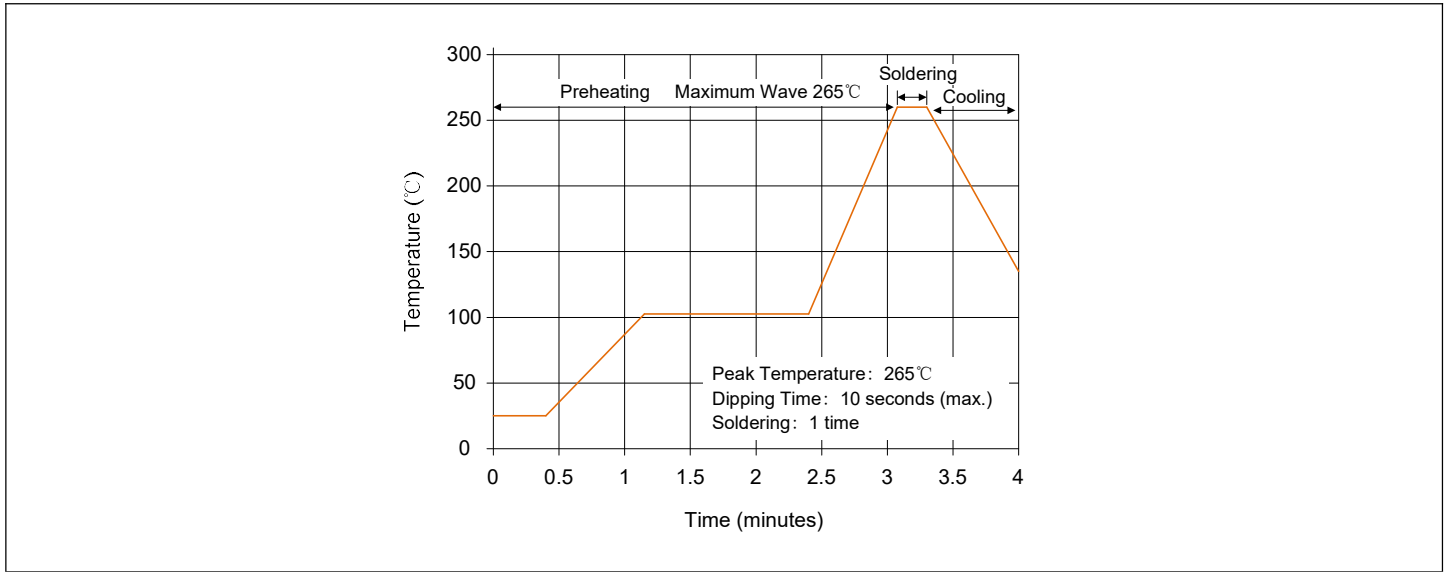
Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ )

Part Number	Reverse Stand-Off Voltage	Breakdown Voltage @ $I_T$		Test Current	Maximum Clamping Voltage @ $I_{PP}$	Peak Pulse Current	Reverse Leakage @ $V_R$
	$V_R(V)$	$V_{B Min.}(V)$	$V_{B Max.}(V)$	$I_T(mA)$	$V_C(V)$	$I_{PP}(A)$	$I_R(\mu A)$
8KP36A	36	40	44.2	5	58.1	137.7	2

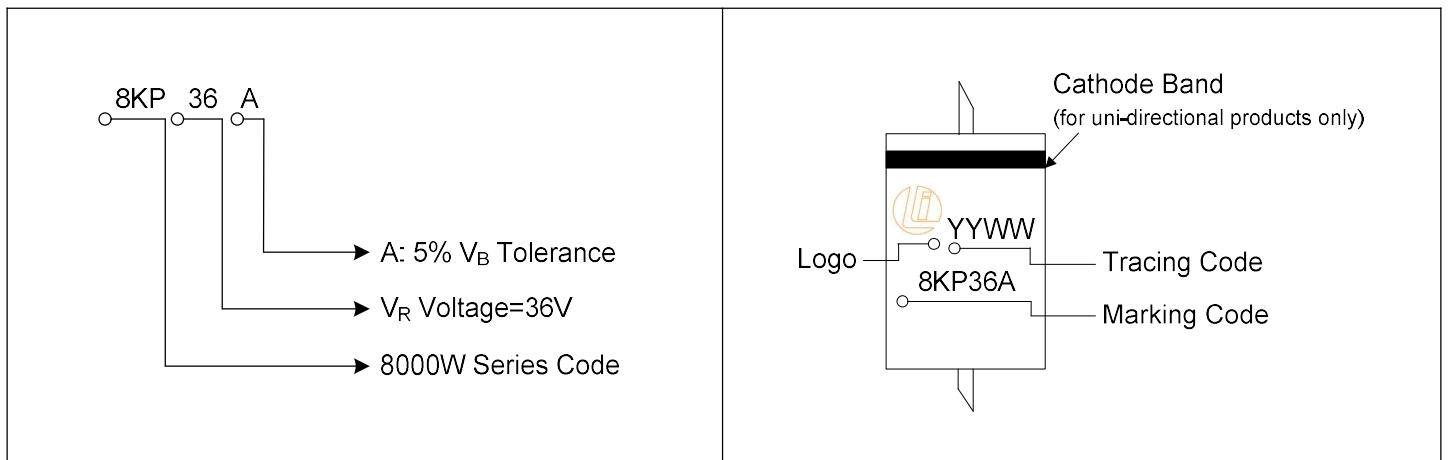
Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ )



## Wave Soldering



## Part Number Code and Marking Code



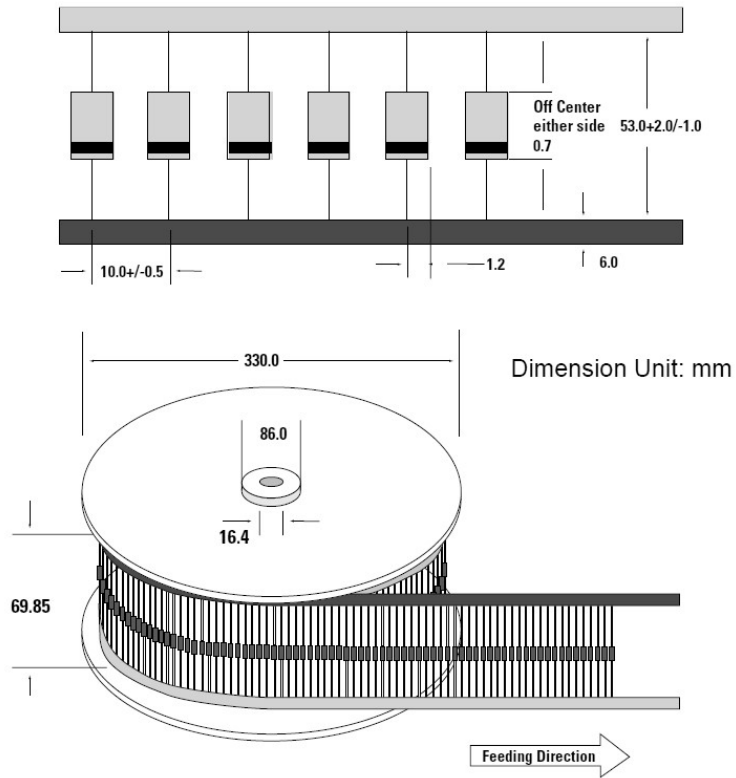
## Dimensions (P600)

The diagram shows the dimensions of the TVS diode. The dimensions are labeled A, B, C, and d. A is the length of the leads, B is the width of the body, C is the height of the body, and d is the thickness of the leads.

Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.40	-	1.000	-
B	8.60	9.10	0.340	0.360
C	8.60	9.10	0.340	0.360
d	1.19	1.35	0.047	0.053

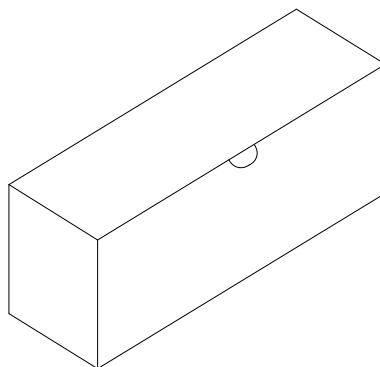
## Packaging Specification

Tape



Quantity: 800pcs/reel

Box



Quantity: 300pcs/box