

# P6KE600C

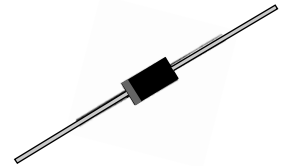
## 600W Transient Voltage Suppressors

**(Pb)** Lead(Pb)-Free

### Feature:

- \* Plastic package
- \* Glass passivated chip junction in DO-15 Package
- \* 600W surge capability at 10/1000  $\mu$ s wave form
- \* Excellent clamping capability
- \* Low zener impedance
- \* Fast response time: typically less than 1.0ps from 0 Volts to BV min.
- \* Typical IR less than 1 $\mu$ A above 10V
- \* High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension

**Peak Pulse Power**  
**600 Watt**  
**Stand-off Voltage**  
**600 VOLTS**



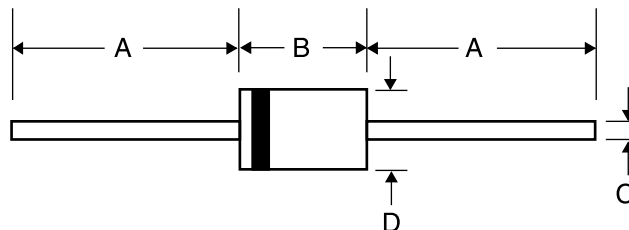
**DO-15**  
**(DO-204AC)**

### Mechanical Data

- \* Case: JEDEC DO-15 molded Plastic.
- \* Terminals: Axial Leads, Solderable per MIL-STD-750, Method 2026
- \* Polarity: Color Band Denotes Cathode Except Bipolar
- \* Mounting Position: Any
- \* Weight: 0.4 grams(approx), 0.015 ounce.

### DO-15 Outline Dimensions

#### Axial Device



Dim	A		B		C		D	
	Min	Max	Min	Max	Min	Max	Min	Max
DO-15	25.4	-	5.8	7.6	0.71	0.86	2.6	3.6

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## Maximum Ratings ( $T_A=25^\circ\text{C}$ Unless otherwise Noted)

Characteristics	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A=25^\circ\text{C}$ , $t_p=1.0\text{ ms}$ <sup>(1)</sup>	$P_{PPM}$	600(Min)	W
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ Lead Lengths .375"(9.5mm) <sup>(2)</sup>	$P_{M(AV)}$	5	W
Peak Forward Surge Current 8.3ms Single Half Sine-Wave, Superimposed on Rated Load(JEDEC Method) <sup>(3)</sup>	$I_{FSM}$	100	A
Operating and Storage Junction Temperature Range	$T_j, T_{STG}$	-55 to -175	$^\circ\text{C}$

NOTE: 1. Non-Repetitive Current Pulse, per FIG3 and Derated above  $T_A=25^\circ\text{C}$  per FIG2

2. Mounted on Copper Pads Area of  $1.6 \times 1.6$ "( $40 \times 40$ mm) per FIG.5.

3. 8.3ms Single Half Sine-Wave, or equivalent Square Wave, Duty Cycle=4 pulses per minutes Maximum.

## Electrical Characteristics

P6KE PART NUMBER	REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN.@ $I_T$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX.@ $I_T$	TEST CURRENT $I_T$ (mA)	MAXIMUM CLAMPING VOLTAGE @ $I_{pp}$ Vc(V)	PEAK PULSE CURRENT $I_{pp}(A)$	REVERSE LEAKAGE @ $V_{RWM}$ $I_R(\mu A)$
P6KE600C	512	540	660	1	828	0.75	5

For bidirectional type having  $V_{rwm}$  of 10 volts and less, the  $I_R$  limit is double.

For parts without A, the  $V_{BR}$  is  $\pm 10\%$

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## RATINGS AND CHARACTERISTIC CURVES

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

