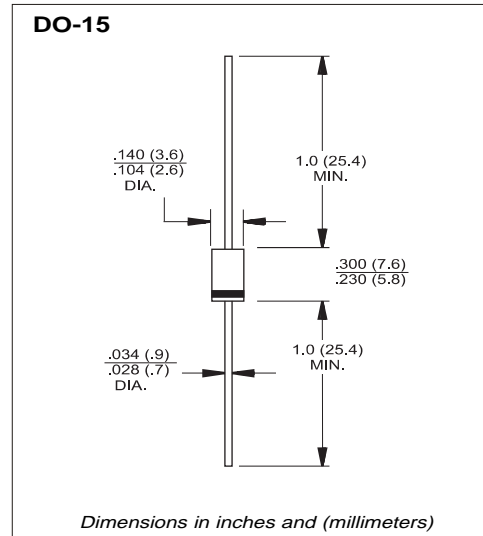


## 600W Transient Voltage Suppressor

### P6KE120 A

■ Features

- 600W Peak Pulse Power Dissipation
- Voltage Range 33.3V
- Constructed with Glass Passivated Die
- Uni- and Bidirectional Versions Available
- Excellent Clamping Capability
- Fast Response Time



■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Peak Power Dissipation, $t_p = 1.0 \text{ ms}^*1$	PPK	600	W
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$ Lead Lengths 9.5 mm (Mounted on Copper Land Area of 40mm )	$P_D$	5.0	W
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave, Superimposed on Rated Load (JEDEC Method) $^*2$	$I_{FSM}$	100	A
Forward Voltage @ $I_F = 35\text{A}$ <span style="float: right;"><math>V_{BR} \leq 200\text{V}</math></span>	$V_F$	3.5	V
300 $\mu\text{s}$ Square Wave Pulse, Unidirectional Only $V_{BR} > 200\text{V}$		5.0	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +175	$^\circ\text{C}$

$^*1$  Non repetitive current pulse, derated above  $T_A = 25^\circ\text{C}$

$^*2$  Duty Cycle = 4 pulses per minute maximum

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$

Type Number	Reverse Standoff Voltage	Breakdown Voltage $V_{BR} @ I_T$			Test Current	Max Reverse Leakage $^*3$ @ $V_R$	Max Clamping Voltage @ $I_{PP}$	Max Peak Pulse Current
		Min(V)	Nom(V)	Max(V)				
(Uni)	$V_{RWM}(V)$				$I_T$ (mA)	$I_R$ ( $\mu\text{A}$ )	$V_C(V)$	$I_{PP}(A)$
P6KE120A	102	114	120	126	1	5	165	3.6

$^*3$  For bidirectional devices having  $V_R$  of 10 V and under, the  $I_R$  limit is doubled.

■ Marking

Marking	P6KE120A
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# P6KE120A

## ■ Typical Characteristics

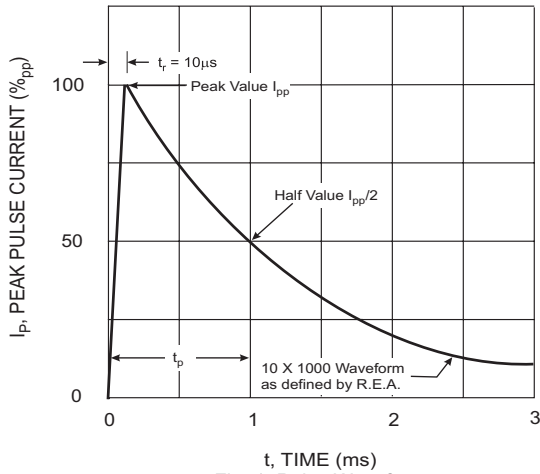


Fig. 1 Pulse Waveform

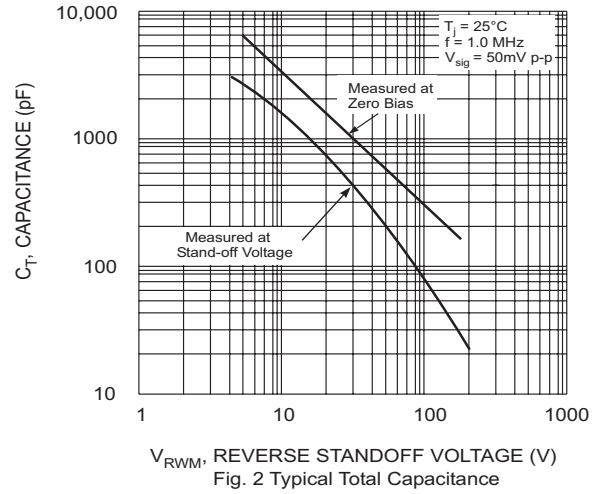


Fig. 2 Typical Total Capacitance

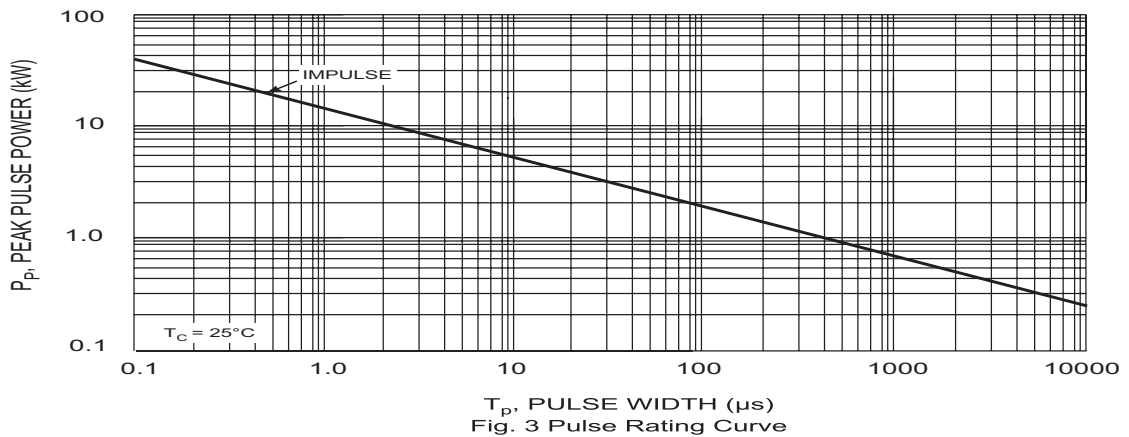


Fig. 3 Pulse Rating Curve

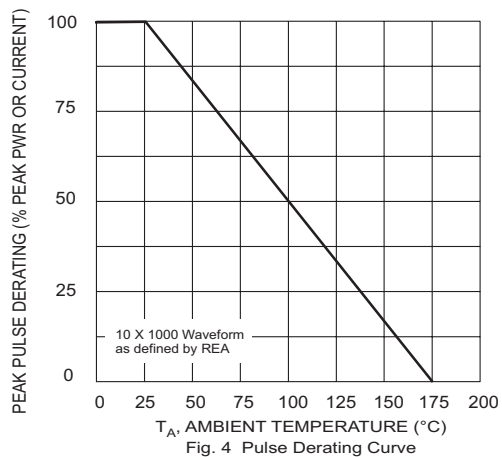


Fig. 4 Pulse Derating Curve

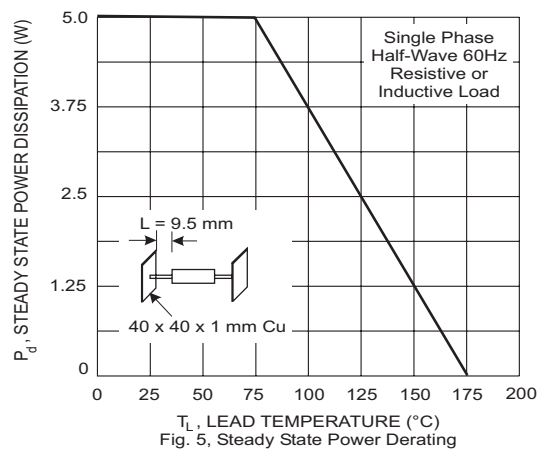


Fig. 5, Steady State Power Derating

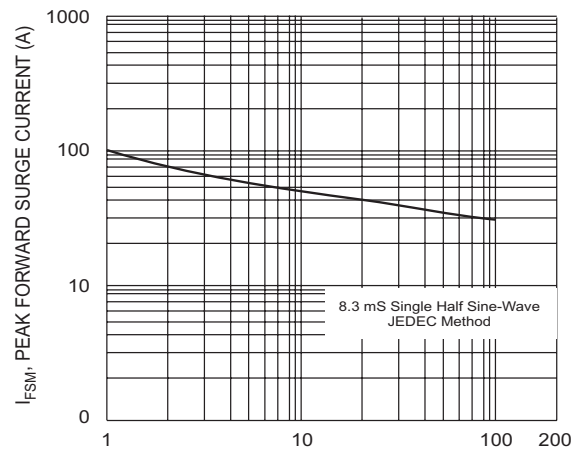
**P6KE120 A**

Fig. 6 Peak Forward Surge Current  
vs. Number of Cycles at 60Hz