

QP6KE36A

TRANSIENT VOLTAGE SUPPRESSOR

V_{BR} : 34.2 - 37.8 Volts

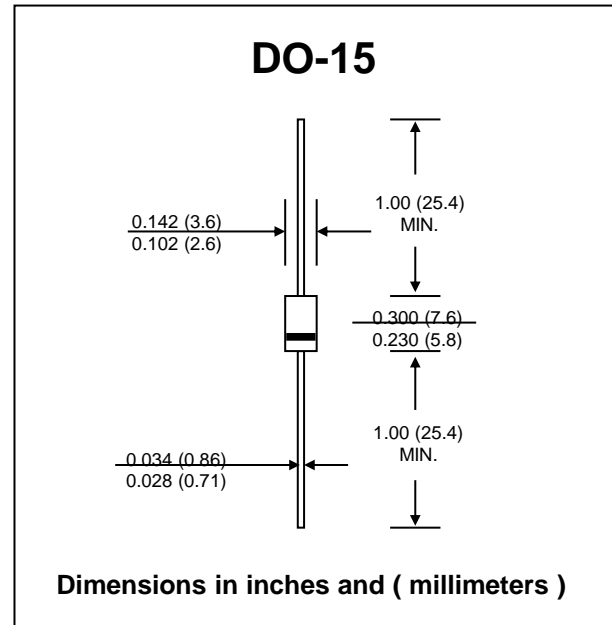
P_{PK} : 600 Watts

FEATURES :

- * Glass passivated junction chip
- * 600W surge capability at 1ms
- * Excellent clamping capability
- * Low zener impedance
- * Fast response time : typically less than 1.0 ps from 0 volt to V_{BR(min.)}
- * Typical I_R less than 1μA above 10V
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : DO-15 Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.4 gram



DEVICES FOR BIPOLAR APPLICATIONS

For Bi-directional use C or CA Suffix
Electrical characteristics apply in both directions

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Peak Power Dissipation at Ta = 25 °C, Tp=1ms (Note1)	P _{PK}	Minimum 600	W
Steady State Power Dissipation at TL = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P _D	5.0	W
Operating and Storage Temperature Range	T _J , T _{STG}	- 65 to + 175	°C

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Breakdown Voltage @ I _t (Note 3)	V _{BR}	Min	34.2
		Max	37.8
		I _t	1.0
Working Peak Reverse Voltage	V _{RWM}	30.8	V
Maximum Reverse Leakage @ V _{RWM}	I _R	5.0	μA
Maximum Reverse Current	I _{RSM}	12.0	A
Maximum Clamping Voltage @ I _{RSM}	V _{RSM}	49.9	V
Maximum Temperature Co-efficient of V _{BR}		0.099	%/ °C

Notes :

- (1) Non-repetitive Current pulse and derated above Ta = 25 °C.
- (2) Mounted on Copper Leaf area of 1.57 in² (40mm²).
- (3) V_{BR} measured after I_t applied for 300 μs., I_t = square wave pulse or equivalent.

RATING AND CHARACTERISTIC CURVES (P6KE SERIES)

FIG.1 - PULSE DERATING CURVE

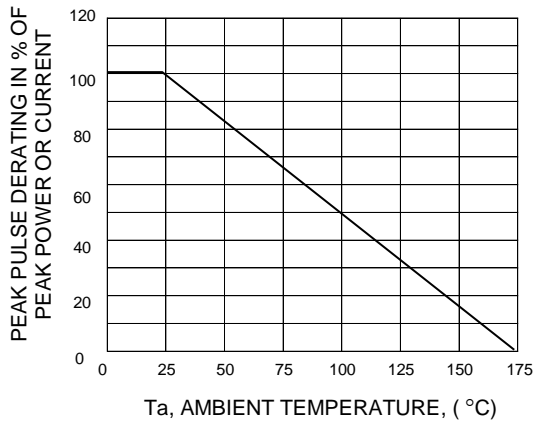


FIG. 2 - TYPICAL JUNCTION CAPACITANCE UNI-DIRECTIONAL

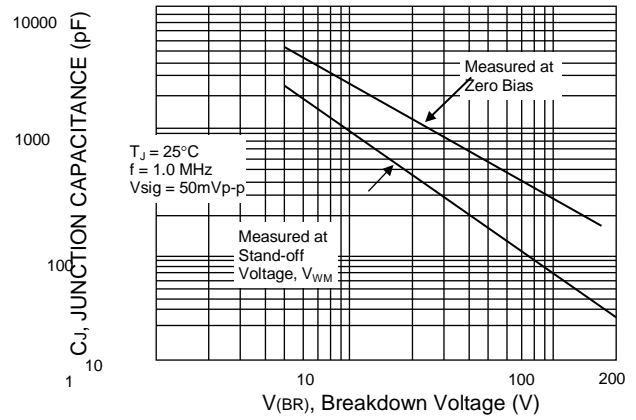


FIG.3 - STEADY STATE POWER DERATING

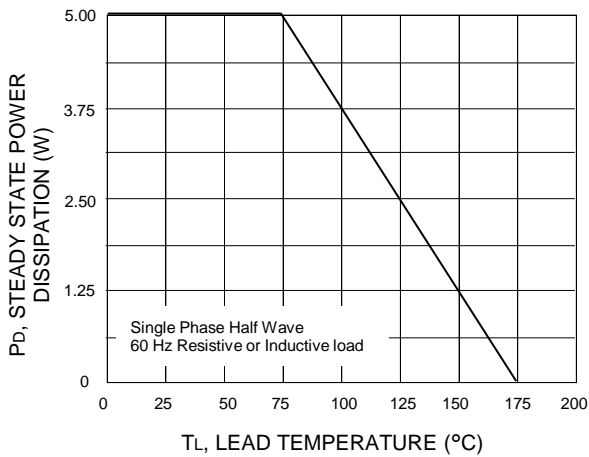


FIG.4 - PULSE RATING CURVE

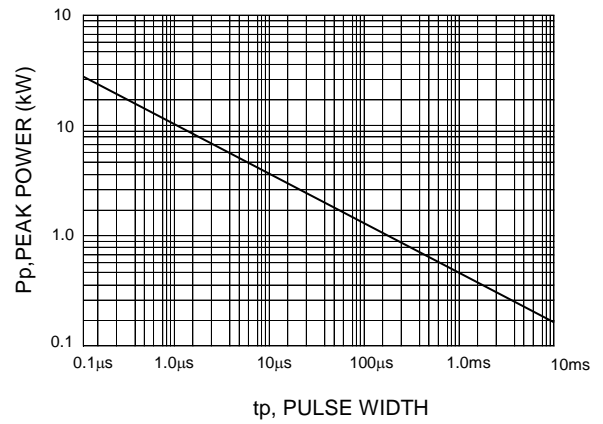


FIG.5 - PULSE WAVEFORM

