

1.5KE480A ~ 1.5KE600CA

TRANSIENT VOLTAGE SUPPRESSOR

V_{BR} : 480 - 600 Volts

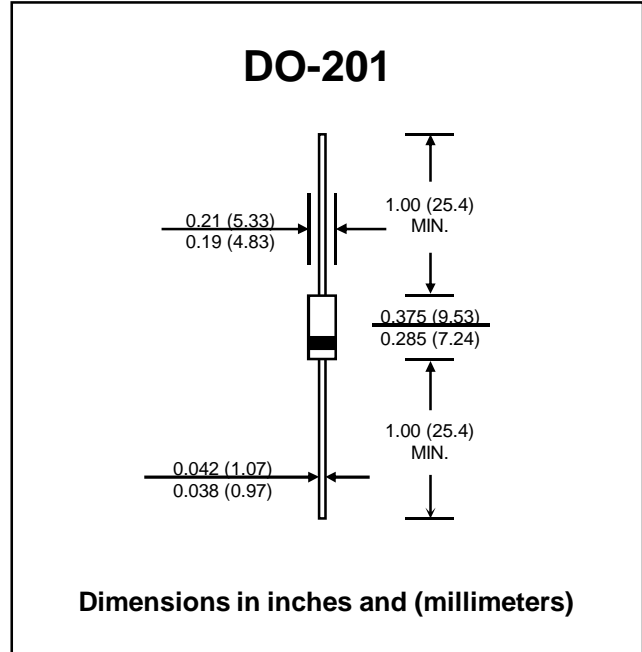
P_{PK} : 1500 Watts

FEATURES :

- * Glass passivated junction chip
- * 1500W surge capability at 1ms
- * Excellent clamping capability
- * Fast response time : typically less than 1.0 ps from 0 volt to V_{BR(min.)}
- * Pb / RoHS Free

MECHANICAL DATA

- * Case : DO-201 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 except Bipolar.
- * Mounting position : Any
- * Weight : 0.93 grams



DEVICES FOR BIPOLAR APPLICATIONS

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

MAXIMUM RATINGS (Rating at 25 °C ambient temperature unless otherwise specified.)

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 1500	W
Steady State Power Dissipation at T _L = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P _D	5.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Unidirectional Only (Note 3)	I _{FSM}	100	A
Maximum Instantaneous Forward Voltage at 50A Unidirectional Only	V _F	6.0	V
Operating and Storage Temperature Range	T _J , T _{STG}	- 65 to + 175	°C

Notes :

- (1) Non-repetitive Current pulse, per Fig. 5 and derated above Ta = 25 °C per Fig. 1
- (2) Mounted on Copper Leaf area of 1.57 in² (40mm²).
- (3) 8.3 ms single half sine-wave, duty cycle = 4 pulses per minutes maximum.

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Part Number (Uni-directional)	Part Number (Bi-directional)	Breakdown Voltage @ I_t		Test Current	Reverse Stand off voltage	Maximum Reverse Leakage @ V_R	Maximum Clamping Voltage @ I_P	Maximum Peak Pulse Current
		V_{BR} (V)		I_t	V_R	I_R	V_C	I_{PP}
		Min.	Max.	(mA)	(V)	(μ A)	(V)	(A)
1.5KE480A	1.5KE480CA	456.00	504.00	1.0	408.00	1.0	658	2.3
1.5KE510A	1.5KE510CA	485.00	535.00	1.0	434.00	1.0	698	2.1
1.5KE530A	1.5KE530CA	503.50	556.50	1.0	477.00	1.0	725	2.1
1.5KE540A	1.5KE540CA	513.00	567.00	1.0	459.00	1.0	740	2.0
1.5KE550A	1.5KE550CA	522.50	577.50	1.0	495.00	1.0	760	2.0
1.5KE600A	1.5KE600CA	570.00	630.00	1.0	512.00	1.0	828	1.8

Note : (1) For parts without A, the V_{BR} is +10% and V_C is 5% higher than with A parts.

RATING AND CHARACTERISTIC CURVES (1.5KE480A ~ 1.5KE600CA)

FIG.1 - PULSE DERATING CURVE

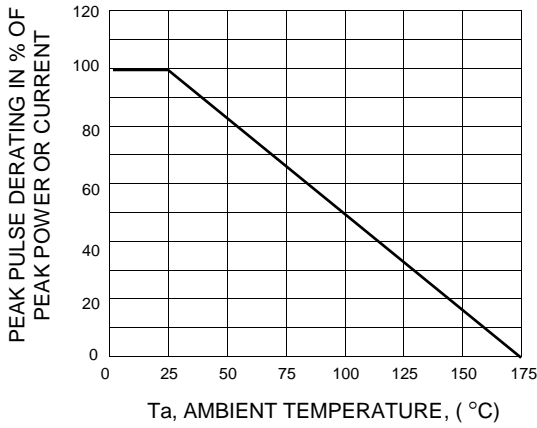


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

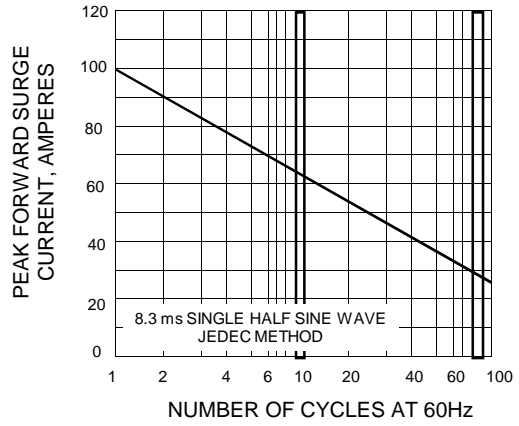


FIG.3 - STEADY STATE POWER DERATING

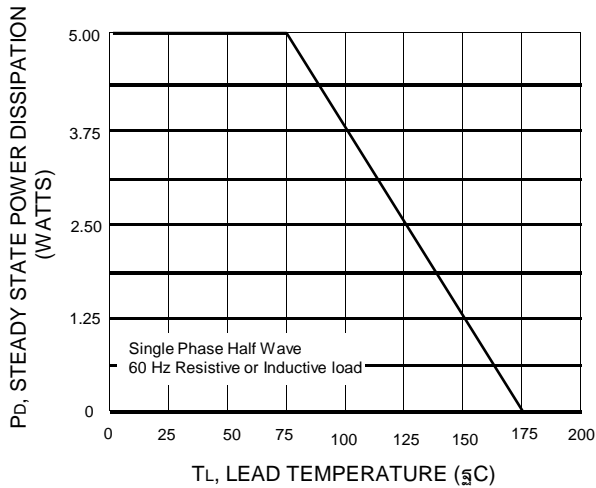


FIG.4 - PULSE RATING CURVE

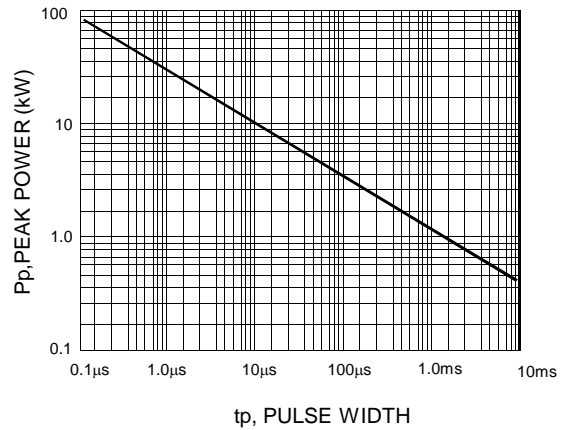


FIG.5 - PULSE WAVEFORM

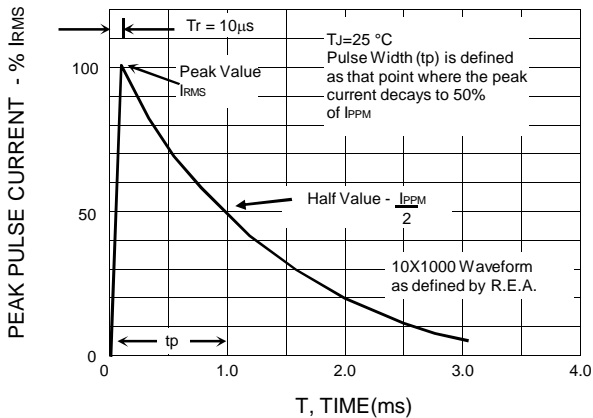


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

