1.5KE39A

Transient Voltage Suppressors

Pppm：1500W IFSM：200A

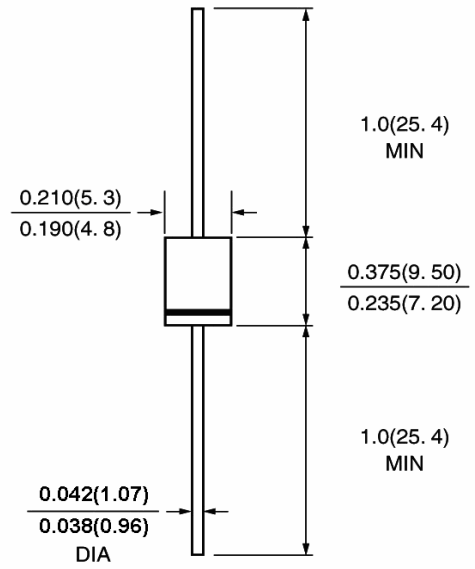
FEATURE

Low power loss
High surge capability
Ultra-fast recovery time for high efficiency
High temperature soldering guaranteed
250℃/10sec/0.375″ lead length at 5 lbs tension

MECHANICAL DATA

Terminal：Plated axial leads solderable per MIL-STD 202E, method 208C
Case：Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity：color band denotes cathode
Mounting position：any

DO-201



Dimensions in inches and (millimeters)

MAXIMUM RATINGS
(TA = 25 ℃ unless otherwise noted)

PARAMETER	SYMBOL	1.5KE39A	units
Peak power dissipation with a 10/1000 μs waveform (1) (Fig. 1)	PPPM	1500	W
Peak pulse current with a 10/1000 μs waveform (1)	IPPM	27.8	A
Breakdown Voltage at I_T=1mA	VBR	37.1min 41.0max	V
Maximum Reverse Leakage at V_{WM}=33.3V	IR	1.0	μ A
Maximum Clamping Voltage at IPPM	VC	53.9	V
Power dissipation on infinite heatsink at TL = 75 °C (Fig. 5)	PD	6.5	W
Peak forward surge current, 8.3 ms single half sine-wave (2)	IFSM	200	A
Maximum instantaneous forward voltage at 100 A for unidirectional only	VF	3.5	V
Typical thermal resistance junction-to-lead	Rth(jl)	20	℃/W
Typical thermal resistance junction-to--ambient	Rth(ja)	75	℃/W
Storage and Operating Junction Temperature	Tstg,Tj	-55 to +175	℃

Note:
(1) Non-repetitive current pulse, per Fig. 3 and derated above TA = 25 ℃ per Fig. 2
(2) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 per minute maximum

RATINGS AND CHARACTERISTIC CURVES 1.5KE39A

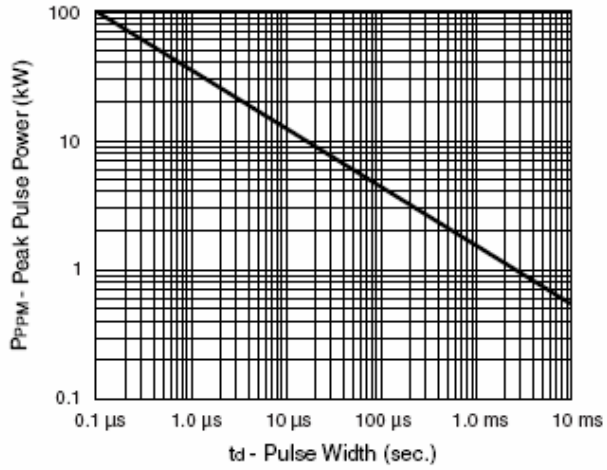


Figure 1. Peak Pulse Power Rating Curve

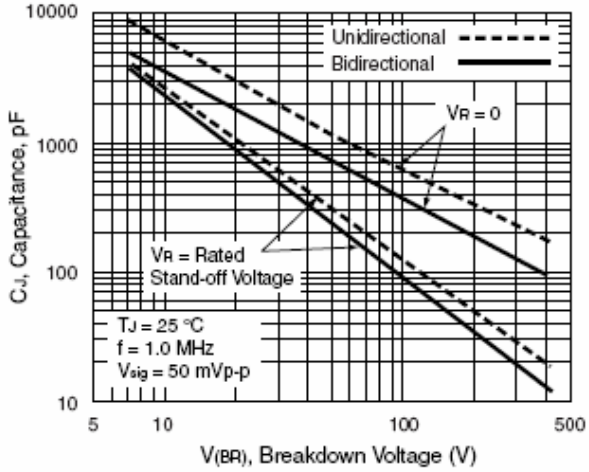


Figure 4. Typical Junction Capacitance

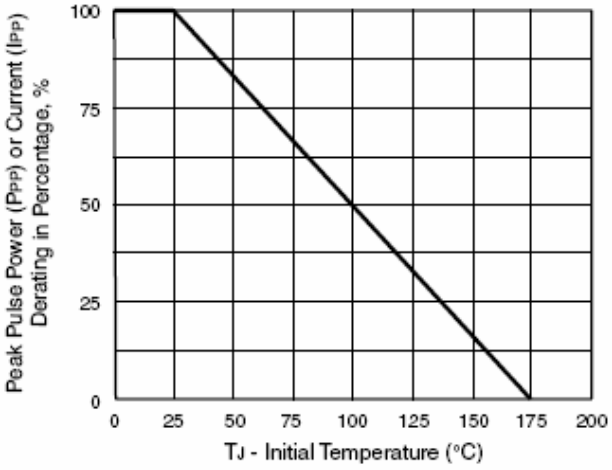


Figure 2. Pulse Power or Current versus Initial Junction Temperature

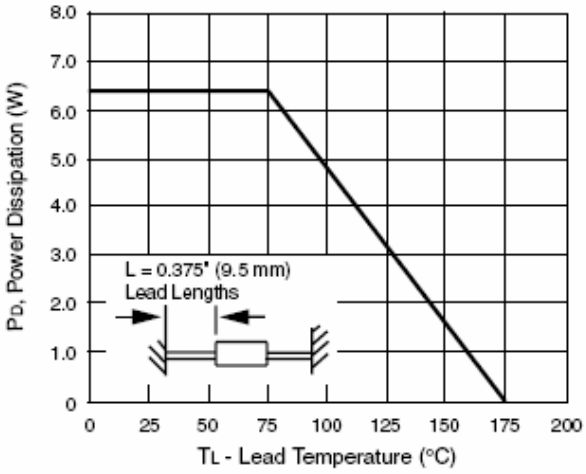


Figure 5. Power Derating Curve

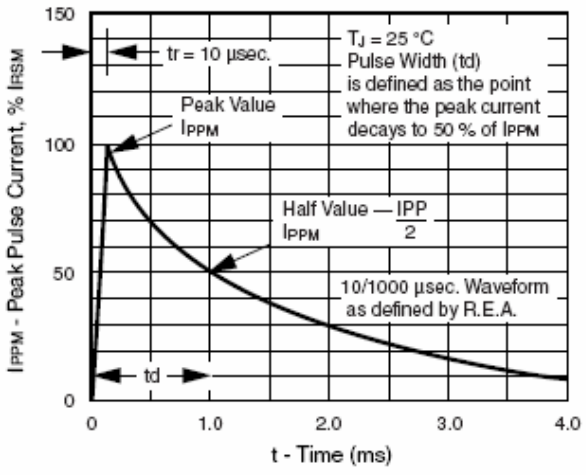


Figure 3. Pulse Waveform

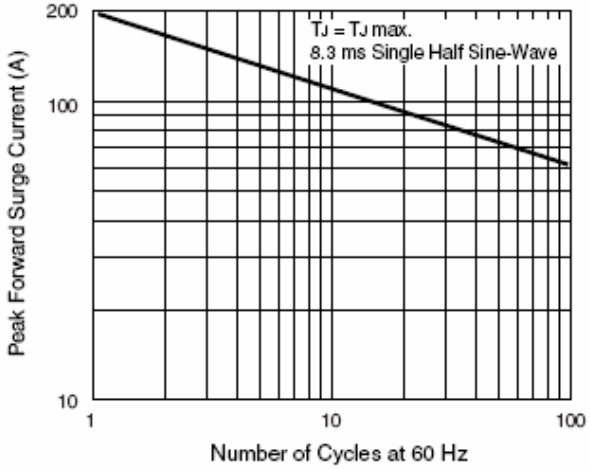


Figure 6. Maximum Non-repetitive Forward Surge Current Uni-Directional only

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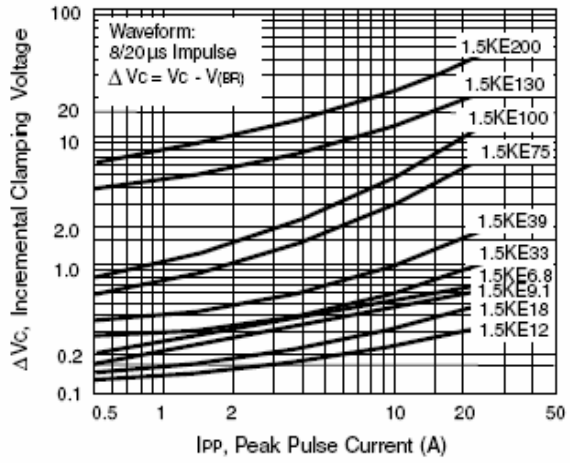

Figure 7. Incremental Clamping Voltage Curve (Unidirectional)

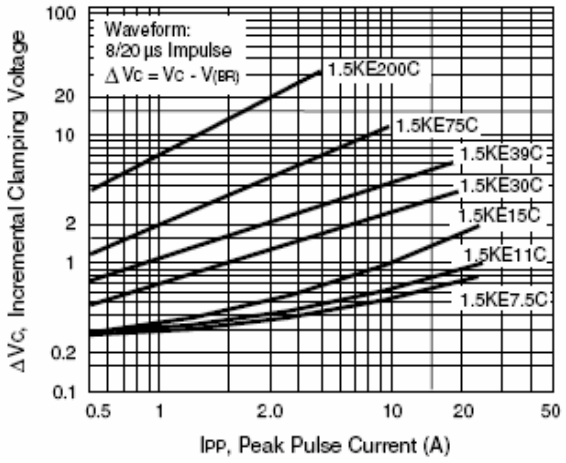

Figure 10. Incremental Clamping Voltage Curve (Bidirectional)

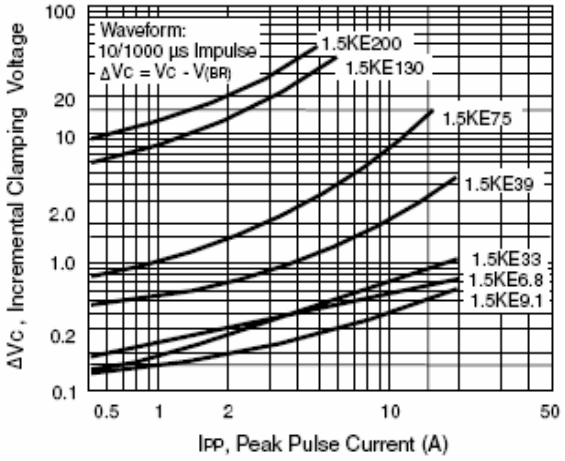

Figure 8. Incremental Clamping Voltage Curve (Unidirectional)

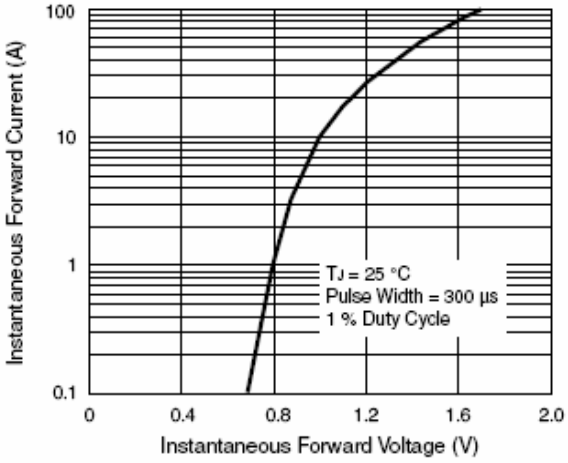

Figure 11. Instantaneous Forward Voltage Characteristics Curve

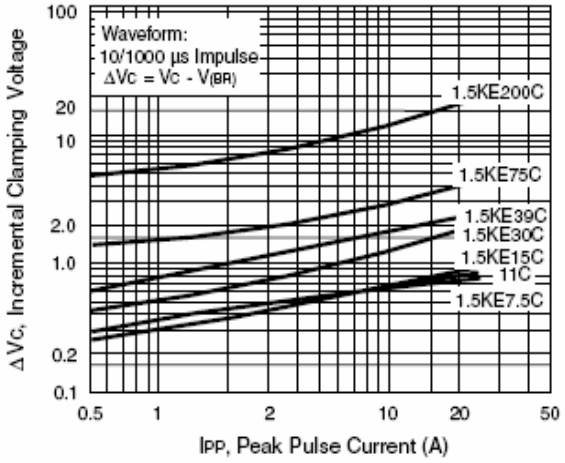

Figure 9. Incremental Clamping Voltage Curve (Bidirectional)

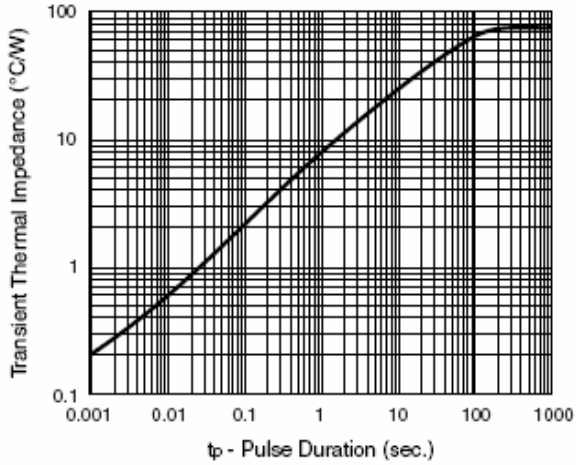

Figure 12. Typical Transient Thermal Impedance