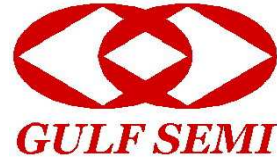


# P6KE550

## Transient Voltage Suppressors

Pppm: 600W

IFSM: 100A



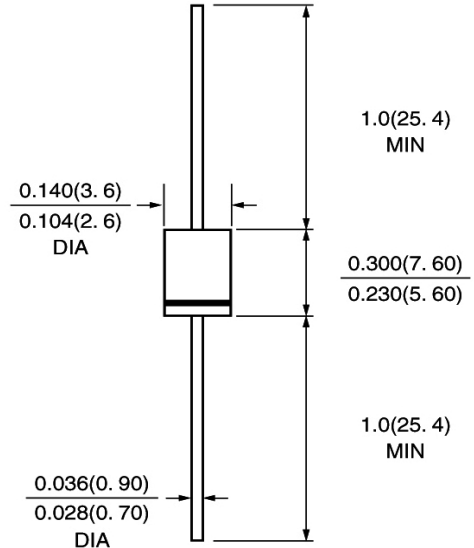
### FEATURE

Low power loss  
High surge capability  
Glass passivated chip junction  
High temperature soldering guaranteed  
250°C/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-15/DO-204AC



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS (TA = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	P6KE550	units
Peak power dissipation with a 10/1000 $\mu$ s waveform (1) (Fig. 1)	$P_{PPM}$	600	W
Peak pulse current with a 10/1000 $\mu$ s waveform (1)	$I_{PPM}$	0.77	A
Breakdown Voltage at $I_T=1mA$	$V_{BR}$	495min 605max	V
Maximum Reverse Leakage at $V_{WM}=445V$	$I_R$	1.0	$\mu$ A
Maximum Clamping Voltage at IPPM	$V_C$	786	V
Power dissipation on infinite heatsink at TL = 75 °C (Fig. 5)	$P_D$	5.0	W
Peak forward surge current, 8.3 ms single half sine-wave (2)	$I_{FSM}$	100	A
Maximum instantaneous forward voltage at 50 A for unidirectional only	$V_F$	5.0	V
Typical thermal resistance junction-to-lead	Rth(jl)	20	°C/W
Typical thermal resistance junction-to--ambient	Rth(ja)	75	°C/W
Storage and Operating Junction Temperature	Tstg,Tj	-55 to +175	°C

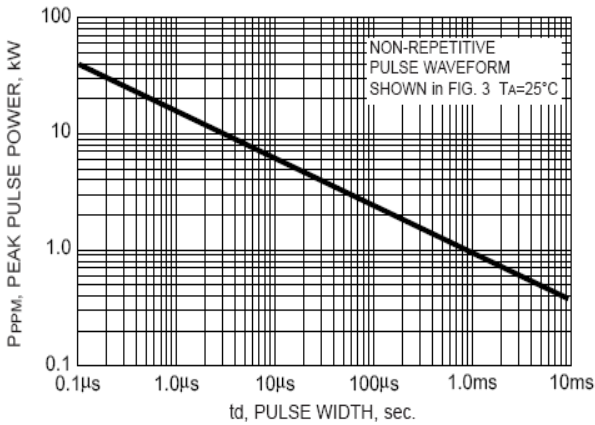
Note:

(1) Non-repetitive current pulse, per Fig. 3 and derated above TA = 25 °C per Fig. 2

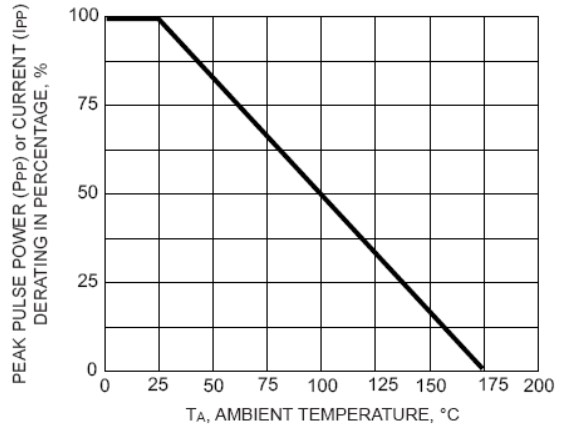
(2) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 per minute maximum

# RATINGS AND CHARACTERISTIC CURVES P6KE550

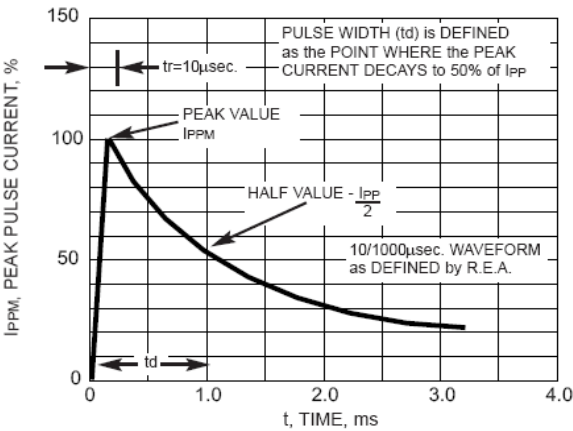
**FIG. 1 - PEAK PULSE POWER RATING CURVE**



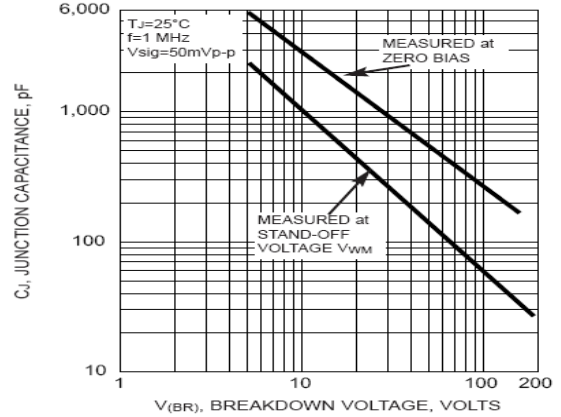
**FIG. 2 - PULSE DERATING CURVE**



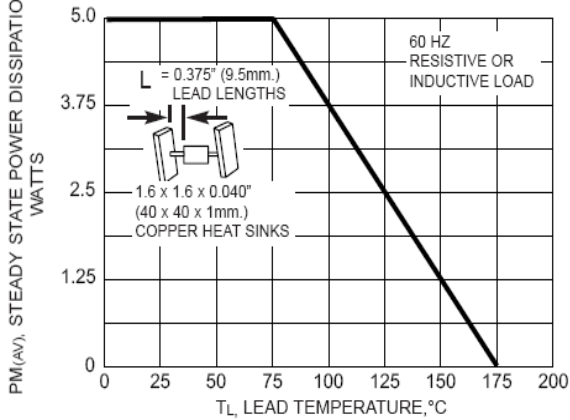
**FIG. 3 - PULSE WAVEFORM**



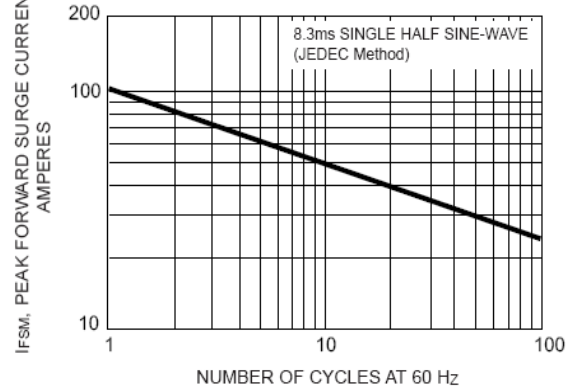
**FIG. 4 - TYPICAL JUNCTION CAPACITANCE UNIDIRECTIONAL**



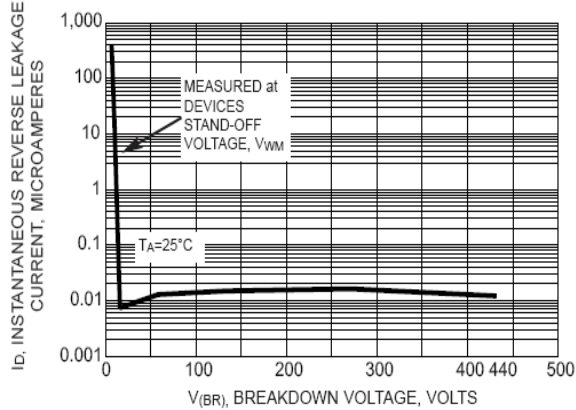
**FIG. 5 - STEADY STATE POWER DERATING CURVE**



**FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNI-DIRECTIONAL**



**FIG. 7 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**Figure 8. Typical Transient Thermal Impedance**

