

FEATURES

- Glass passivated junction.
- 8000W Peak Pulse Power capability at $10 \times 1000\mu\text{s}$ waveform, repetition rate (duty cycles) : 0.01%.
- Excellent clamping capability.
- Fast response time
- Low leakage.



MECHANICAL DATA

- Case: Molded plastic over glass passivated junction.
- Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026.
- Polarity : Color band denotes cathode except bipolar.
- Weight : 2.5 grams.

DEVICES FOR BIPOLAR APPLICATIONS

- Bidirectional types use A orCA suffix.
- Electrical Characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

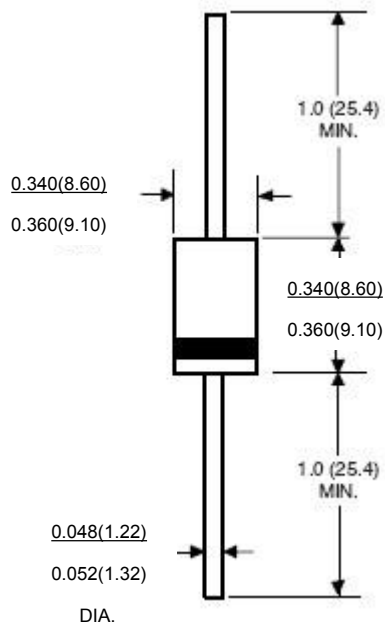
Type Number	Symbol	Value	Units
Peak Pulse Power Dissipation by $10 \times 1000 \mu\text{s}$ test waveform (Fig.1) (Note 1)	P_{PPM}	8000	Watts
Steady State Power Dissipation on infinite heat sink at $T_L = 75^\circ\text{C}$ (Fig.5)	P_D	8.0	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Unidirectional only (Note 2)	I_{FSM}	500	A
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	$^\circ\text{C}$

Notes: Notes: 1. Non-repetitive current pulse and derated above $T_A = 25^\circ\text{C}$.

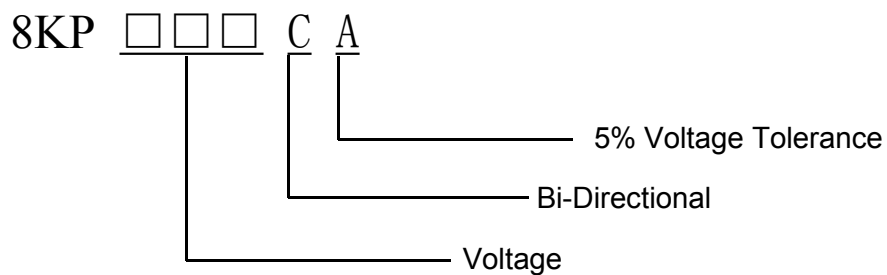
2. 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

PACKAGE DIMENSIONS

P600



ORDERING INFORMATION



PACKAGING

Part Number	Component Package	Quantity
8KP36CA	P600	300

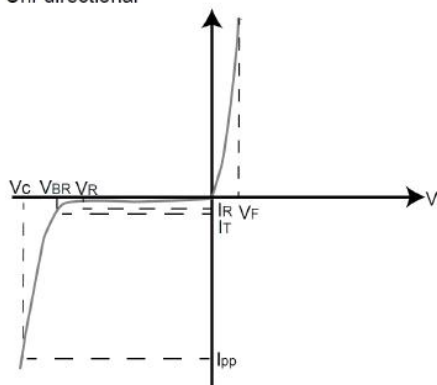
ELECTRICAL CHARACTERISTICS

8KP DEVICES	REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE Min.@ I_T V_{BR} Min.(V)	BREAKDOWN VOLTAGE Max.@ I_T V_{BR} Max.(V)	TEST CURRENT $I_T(mA)$	MAXIMUM CLAMPING VOLTAGE @ I_{pp} $V_C(V)$	PEAK PULSE CURRENT $I_{pp}(A)$	REVERSE LEAKAGE @ V_{RWM} $I_R(uA)$
8KP36CA	36	40	44.2	1	58.1	148	5

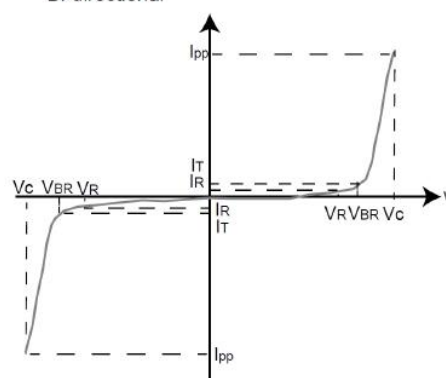
Notes:For bidirectional type having V_{RWM} of 30 volts and less, the I_R limit is double.

TYPICAL CHARACTERISTICS

Uni-directional



Bi-directional



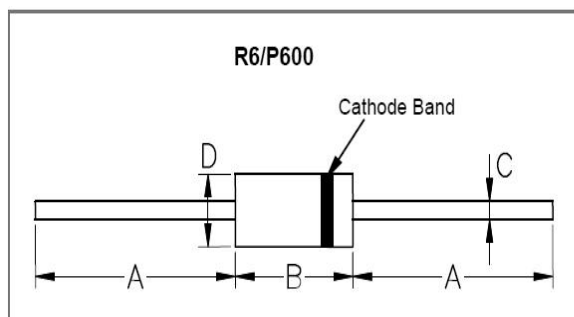
Physical Specification

Weight	0.07 ounce, 2.1gram
Case	JEDEC R-6/P600 Molded Plastic over glass passivated junction
Polarity	Color band denotes cathode except Bipolar
Terminal	Matte Tin-plated leads, Solderable per JESD22-B102D

Environmental Specification

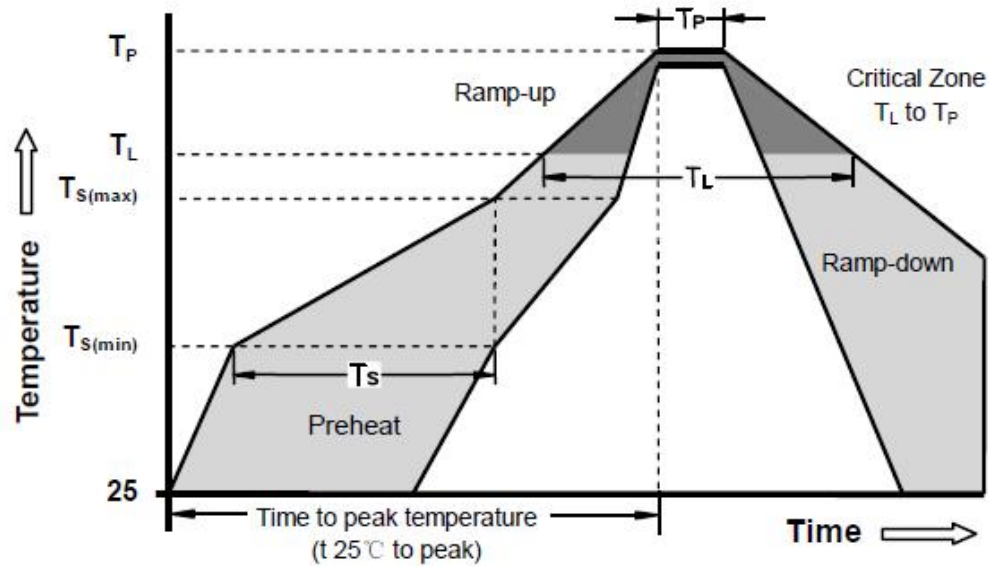
Temperature Cycle	JESD22-A104
Pressure Cooker	JESD22-A102
High Temp. Storage	JESD22-A103
HTRB	JESD22-A108
Thermal Shock	JESD22-A106

Dimensions



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	1.000	-	25.40	-
B	0.340	0.360	8.64	9.14
C	0.048	0.052	1.22	1.32
D	0.340	0.360	8.64	9.14

Soldering Parameters



Reflow Condition		Lead-free assembly
Pre Heat	-Temperature Min ($T_{s(min)}$)	150°C
	-Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (T_s)	60 -180 Seconds
Average ramp up rate (Liquidus Temp T_L) to peak		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Time (min to max) (T_L)	60 -150 Seconds
Peak Temperature (T_P)		260 +0/-5°C
Time within 5°C of actual peak Temperature (t_p)		20 -40 Seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max
Do not exceed		280°C