Socay 8KP100CA Bi-Directional TVS Axial Lead Transient Voltage Suppressors

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: Socay
- Certification: UL,REACH,RoHS,ISO
- Model Number: 8KP100CA
- Minimum Order Quantity: 250PCS
- Price: Negotiable
- Delivery Time: 5-8 work days

Product Specification

- Product Name: TVS Diodes
- Package Type: R6/P600
- Reverse Stand-Off Voltage: 100.0V
- Breakdown Voltage@It Min: 111.0V
- Breakdown Voltage@It Max: 123.0V
- Tast Current: 5mA
- Maximum Clamping Voltage @Ipp: 162.0V
- Maximum Peak Pulse Current: 50.0A
- Maximum Reverse Leakage @Vrwm: 5μA
- Storage Temperature Range: -55 To +150

Product Description

Socay 8KP100CA Bi-Directional TVS Axial Lead Transient Voltage Suppressors

DATASHEET: 8KP Series_v2309.1.pdf

8KP100CA TVS Diode Profile:
The 8KP series is designed to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

8KP100CA TVS Diode Application:
TVS devices are suitable for protecting I/O interfaces, Vcc buses, and other vulnerable circuits used in Telecom, Computer, Industrial, and Consumer electronic applications.

8KP100CA TVS Diode Feature:

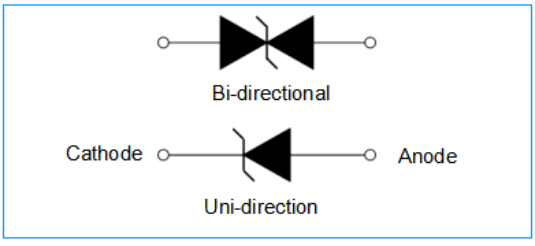
- Low leakage
- Uni and Bidirectional unit
- Excellent clamping capability
- Fast response time
- RoHS compliant
- Glass passivated chip junction in P600 Package
- 8000W Peak power capability at 10 × 1000μs waveform Repetition rate (duty cycle):0.01%

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation with a 10/1000μs waveform (Fig.1)(Note 1), (Note 2)	P_{PPM}	8000	Watts
Peak Pulse Current with a 10/1000μs waveform.(Note1,Fig.3)	I_{PP}	See Next Table	Amps
Power Dissipation on Infinite Heat Sink at T_L=75°C	$P_{M(AV)}$	8.0	Watt
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 3)	I_{FSM}	500	Amps
Operating junction and Storage Temperature Range.	T_J , T_{STG}	-55 to +150	°C

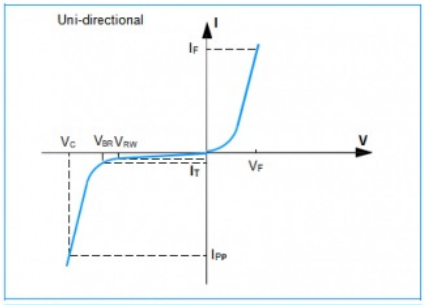
Electrical Characteristic

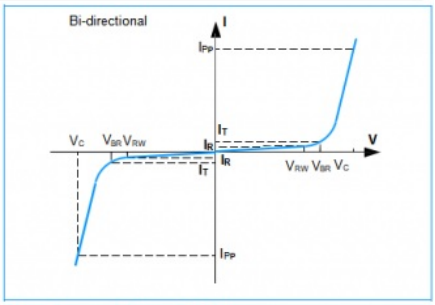
Part Number		Reverse Stand-Off Voltage V_{RWM} (V)	Breakdown Voltage V_{BR} (V) @I_T		Test Current I_T (mA)	Maximum Clamping Voltage V_C (V) @I_{PP}	Maximum Peak Pulse Current I_{PP} (A)	Maximum Reverse Leakage I_R (μA) @V_{RWM}
Uni	Bi		MIN	MAX				
8KP51A	8KP51CA	51	56.7	62.7	5	82.4	97.1	5
8KP58A	8KP58CA	58	64.4	71.2	5	93.6	86.5	5
8KP60A	8KP60CA	60	66.7	73.7	5	96.8	83.7	5
8KP64A	8KP64CA	64	71.1	78.6	5	103.0	78.6	5
8KP70A	8KP70CA	70	77.8	86.0	5	113.0	71.7	5
8KP75A	8KP75CA	75	83.3	92.1	5	121.0	66.9	5
8KP78A	8KP78CA	78	86.7	95.8	5	126.0	64.3	5
8KP85A	8KP85CA	85	94.4	104.0	5	137.0	59.1	5
8KP90A	8KP90CA	90	100.0	111.0	5	146.0	55.5	5
8KP100A	8KP100CA	100	111.0	123.0	5	162.0	50.0	5

Functional Diagram



I-V Curve Characteristics





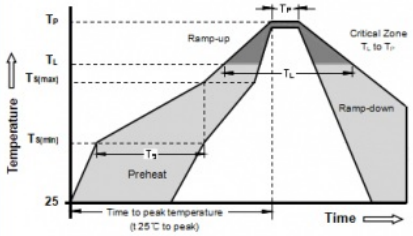
Physical Specifications

Weight	0.007 ounce, 0.21 gram
Case	JEDEC DO-214AB Molded Plastic over glass passivated junction
Polarity	Color band denotes cathode except Bipolar
Terminal	Matte Tin-plated leads, Solderable per JESD22-B102D

Environmental Specifications

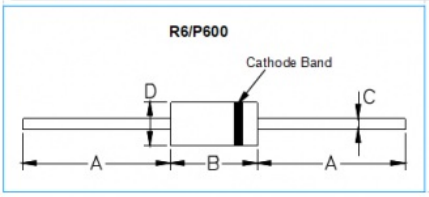
Temperature Cycle	JESD22-A104
Pressure Cooker	JESD22-A102
High Temp. Storage	JESD22-A103
HTRB	JESD22-A108
Thermal Shock	JESD22-A106

Soldering Parameters



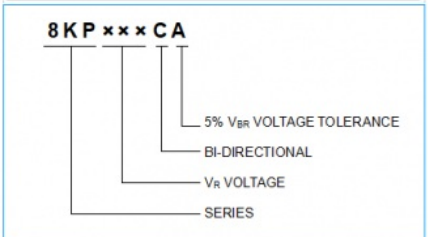
Reflow Condition		Lead–free assembly
Pre Heat	-Temperature Min ($T_{s(min)}$)	150℃
	-Temperature Max ($T_{s(max)}$)	200℃
	- Time (min to max) (T_s)	60 -180 Seconds
Average ramp up rate (Liquidus Temp T_L) to peak		3℃/second max
$T_{S(max)}$ to TL - Ramp-up Rate		3℃/second max
Reflow	- Temperature (T_L)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

Dimensions

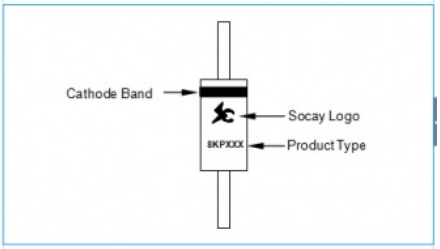


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	1.000	-	25.40	-
B	0.340	0.360	8.64	9.14
C	0.048	0.052	1.22	1.32
D	0.340	0.360	8.64	9.14

Part Numbering



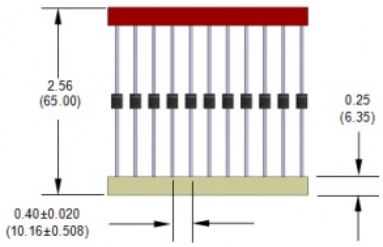
Part Marking



Packaging

Part Number	Component Package	Quantity	Packaging Option
8KP Series	R6/P600	250 PCS	Box

Packaging Dimensions Unit: Inches (Millimeters)



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