



SOCAY Radial Lead TVS Diode Surge Protection KB-058 TVS 6KA High Current

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, Guangdong, China
- Brand Name: SOCAY
- Certification: UL, REACH, RoHS, ISO
- Model Number: KB-058
- Minimum Order Quantity: Negotiable
- Price: Negotiable
- Delivery Time: 5-8 work days



Product Specification

- Product Name: TVS Diodes
- Package Type: Radial Lead
- Vac: 40V
- Vdc: 58V
- Vbr@It (Min.): 64V
- It: 10mA
- Ipp: 6KA
- Vc@Ipp: 110V
- Ir@Vdc: 20μA
- Storage Temperature Range: -55 To +150
- Highlight: Radial Lead TVS Diode Surge Protection,
TVS Diode Surge Protection 6KA



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Product Description

SOCAY Radial Lead TVS Diode KB-058 Blue Powder Surge Suppressor 6KA

DATASHEET: [KB_v211.1.pdf](#)

Selection Method

- 1.To know the customer's product, operating voltage, application port, protection level.
- 2.VRWM (operating voltage) value of the device $\geq$ normal operation in the customer's circuit
- 3.VC (clamp voltage) value < maximum voltage for the back-end chip
- 4.Select the package and power of the device according to the application port and protection level.

Description:

TVS tubes are widely used for the protection of semiconductors and sensitive devices, usually for diode protection. They are characterised by their fast response time (PS level), small size, high transient pulse suppression power and low clamping voltage.

Part Number	Reverse Stand-Off Voltage		Breakdown Voltage	Test Current	Current Rating	Maximum Clamping Voltage	Reverse Leakage
	VAC(V)	VDC(V)	V _{BR} (V) MIN.@I _T	I _T (mA)	I _{PP} 8/20 μ s (KA)	V _C (V) @I _{PP}	I _R (μ A) @VDC
KB-012	8.5	12.8	14	10	6	28	20
KB-015	11	15	17	10	6	30	20
KB-020	14	20	22	10	6	40	20
KB-025	17	25	28	10	6	50	20
KB-030	21	30	33	10	6	60	20
KB-042	30	42	47	10	6	77	20
KB-058	40	58	64	10	6	110	20
KB-066	45	66	70	10	6	125	20
KB-076	54	76	83	10	6	135	20
KB-100	72	100	110	10	6	165	20
KB-133	100	133	147	10	6	220	20
KB-170	130	170	180	10	6	260	20
KB-190	145	190	200	10	6	290	20
KB-200	150	200	222	10	6	330	20
KB-240	180	240	250	10	6	340	20
KB-275	210	275	300	10	6	435	20
KB-300	230	300	330	10	6	470	20
KB-380	275	380	401	10	6	520	20
KB-430	310	430	440	10	6	625	20

Classification

DIP:DO-41,DO-15,DO-201,P600

SMD:SOD-123(SMF),DO-214AC(SMA),DO-214AA(SMB),DO-214AB(SMC)

power:200W~30000W

Response time 1PS,With clamping voltage, voltage limiting element.

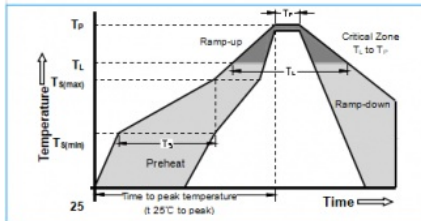
Parameter	Symbol	Value	Unit
Operating junction	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C
Current Rating ¹	I _{PP}	6	KA
Notes:			
1. Rated IPP measured with 8 × 20 μ s pulse.			

Weight	Contact manufacturer
Case	Epoxy encapsulated
Terminal	Silver plated leads, solderable per MIL-STD-750, Method 2026

Functional Diagram



Soldering Parameters



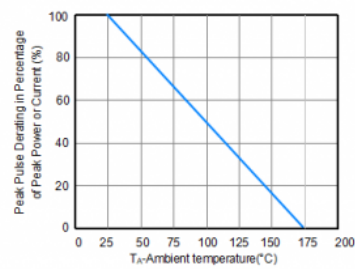
Flow/Wave Soldering (Solder Dipping)

Peak Temperature :	265°C
Dipping Time :	10 seconds
Soldering :	1 time

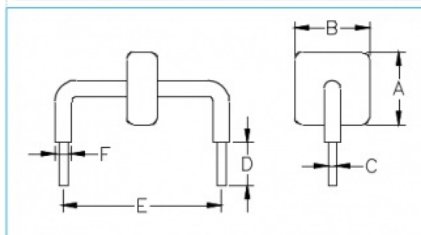
Reflow Condition		Lead-free assembly
Pre Heat	-Temperature Min ($T_{s(min)}$)	150°C
	-Temperature Max ($T_{s(max)}$)	200°C
	-Time (min to max) (T_d)	60 - 180 Seconds
Average ramp up rate (Liquidus Temp T_L) to peak		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (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

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Pulse Derating Curve

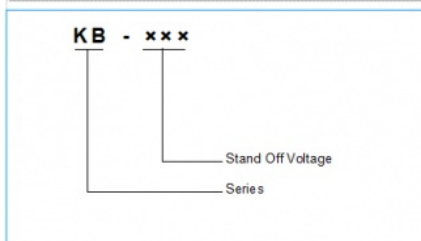


Dimensions



Dimensions	Inches	Millimeters
A	max 0.571	max 14.5
B	Max0.500	max 12.7
C	$\Phi 0.051 \pm 0.004$	$\Phi 1.30 \pm 0.1$
D	0.236 ± 0.040	6.0 ± 1.0
E	0.950 ± 0.028	24.15 ± 0.7
F	max 0.10	max 2.5

Part Numbering



Part Marking

