



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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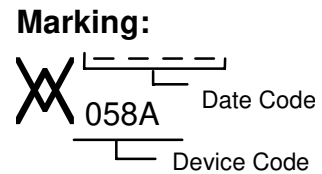
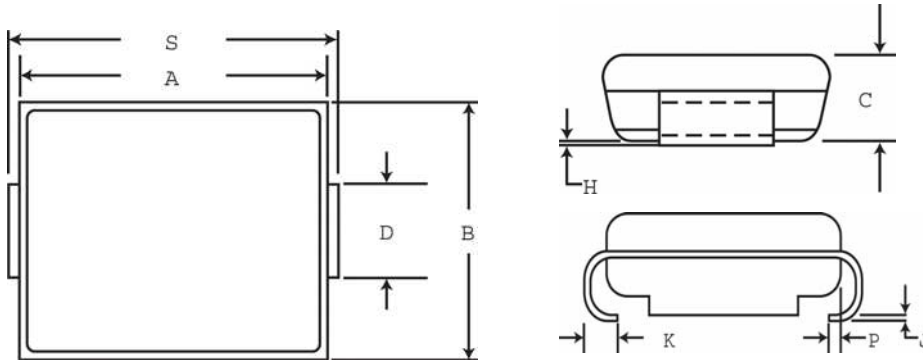
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Specification Status: Released

PHYSICAL DESCRIPTION



	A		B		C		D**		H		J		K	
mm:	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
	4.06	4.57	3.30	3.94	1.90	2.44	1.95	2.20	0.05	0.20	0.15	0.31	0.76	1.52
in*:	(0.160)	(0.180)	(0.130)	(0.155)	(0.075)	(0.096)	(0.077)	(0.086)	(0.002)	(0.008)	(0.006)	(0.012)	(0.030)	(0.060)

	P	S	
mm:	REF	MIN	MAX
	0.51	5.21	5.59
in*:	(0.020)	(0.205)	(0.220)

*Rounded off approximation

** D DIMENSION SHALL BE MEASURED WITHIN DIMENSION P

Other Physical Characteristics

- Form Factor: SMB (Surface Mount, JEDEC DO-214AA Package)
- Lead Material: Matte Tin finish
- Encapsulation Material: Epoxy, meets UL94 V-0 requirements
- Solderability: per MIL-STD-750, Method 2026
- Solder Heat Withstand: per MIL-STD-750, Method 2031
- Solvent Resistance: per MIL-STD-750, Method 1022
- Mechanical Shock: per MIL-STD-750, Method 2016
- Vibration: per MIL-STD-750, Method 2056

Tape and Reel packaging per EIA 481-1

- Agency Recognition: UL
- Precedence: This specification takes precedence over documents referenced herein.
- CAUTION: Operation beyond the rated voltage or current may result in rupture, electrical arcing or flame.

Materials Information

RoHS Compliant
Directive 2002/95/EC Compliant

ELV Compliant
Directive 2000/53/EC Compliant

OBSOLETE
NOT the LATEST REVISION

SiBar™ Thyristor Surge Protectors

Raychem Circuit Protection Products

PRODUCT: TVB058SA-L

DOCUMENT: SCD 25052
PCN: 539912
REV LETTER: H
REV DATE: APRIL 28, 2007
PAGE NO.: 2 OF 2

Parameter	Symbol	Value	Units
Repetitive Off-State Voltage, Maximum at $I_D = 5 \mu A$	VDM	58	V
Non-Repetitive Peak Impulse Current	IPP ₁	50	A
Telcordia GR-1089 CORE 10x1000 μs			
Impulse Current	IPP ₂	70	A
TIA-968 lightning Type A Metallic 10/560 μs			
Double exponential Waveform	IPP ₃	90	A
TIA-968 lightning Type A Longit. 10/160 μs			
Telcordia GR-1089 Intrabuilding 2/10 μs	IPP ₄	150	A
(Notes 1 and 2)			
IEC61000-4-5 (Voc 1.2/50us) 8/20 μs	IPP ₅	150	A
ITU-T K.20/K.21 (Voc 10/700us) 5/310us	IPP ₆	80	A
TIA-968 lightning Type B (Voc 9/720us) 5/320 μs	IPP ₇	80	A
Critical Rate of Rise of On-State Current			
Power Pulse Amplifier, C=30 μF , V=600V	di/dt	500	A/ μs
Maximum 2x10 μs waveform, V _{OC} =750V, I _{SC} =150A peak	di/dt	100	A/ μs

DEVICE THERMAL RATINGS

Storage Temperature Range	TSTG	-55 to 150	°C
Operating Temperature Range Blocking or conducting state	TA	-40 to 125	°C
Overload Junction Temperature Maximum; Conducting state only	TJ	+150	°C
Maximum Lead Temperature for Soldering Purpose; for 10 seconds	TL	+260	°C

ELECTRICAL CHARACTERISTICS Both polarities (T_J @ 25°C unless otherwise noted)

Characteristics	Symbol	Min	Typ	Max	Units
Breakover Voltage (+25°C) (dv/dt = 0.4kV/ms, I _{SC} =900mA, V _{DC} = 500V (both polarities))	VBO	----	64	78	V
Breakover Voltage Temperature Coefficient	dVBO/dTJ	----	0.1	-----	%/°C
Off-State Current (VD1= 50V)	ID1	----	-----	2.0	μA
(VD2=VDM)	ID2=IDM	----	-----	5.0	μA
On-State Voltage (IT=1A) PW ≤ 300 μs , Duty Cycle ≤ 2% (Note 2)	VT	----	-----	4.0	V
Breakover Current	IBO	----	-----	800	mA
Holding Current (Note 2)	IH	150	----	-----	mA
Peak Onstage Surge Current (Measured @ 60Hz, 1 cycle, 600V)	ITSM	22	----	-----	A
Critical Rate of Rise of Off-State Voltage (Linear waveform, VD = 0.8 X Rated VBO, T _J = +25°C)	dv/dt	2000	----	-----	V/ μs
Capacitance (f=1.0 Mhz, 50Vdc bias, 1Vrms)	C1	----	43	-----	pF
(f=1.0 Mhz, 2Vdc bias, 1Vrms)	C2	----	80	-----	pF

Note 1. Allow cooling before testing second polarity

Note 2. Measured under pulse conditions to reduce heating

VOLTAGE-CURRENT CHARACTERISTIC

