



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!



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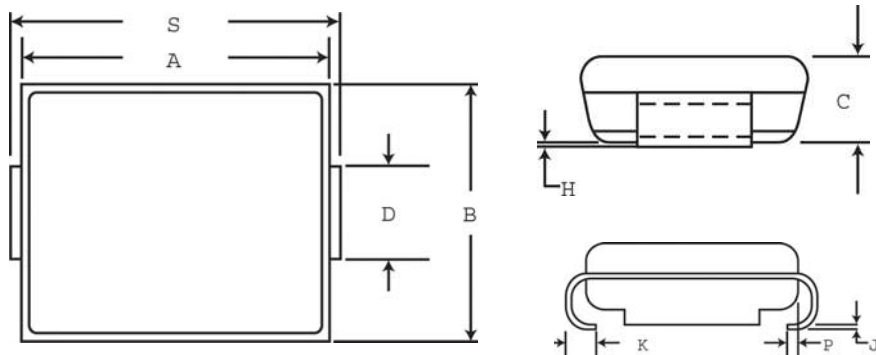
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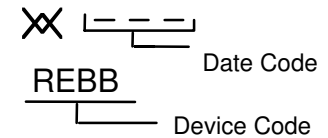


Specification Status: RELEASED

PHYSICAL DESCRIPTION



Marking:



	A		B		C		D**		H		J		K	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm:	4.06	4.57	3.30	3.81	1.90	2.41	1.96	2.11	0.05	0.15	0.15	0.30	0.76	1.27
in*:	(0.160)	(0.180)	(0.130)	(0.150)	(0.075)	(0.095)	(0.077)	(0.083)	(0.002)	(0.006)	(0.006)	(0.012)	(0.030)	(0.050)

	P	S	
	REF	MIN	MAX
mm:	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: Tin/lead 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

ELV Compliant



DEVICE RATINGS @ 25° C (Both Polarities)

Parameter	Symbol	Value	Units
Repetitive Off-State Voltage, Maximum at $I_D = 5 \mu A$	VDM	270	V
Non-Repetitive Peak Telcordia GR-1089 CORE 10x1000 μs	IPP ₁	50	A
Impulse Current TIA-968 lightning Type A Metallic 10/560 μs	IPP ₂	70	A
Double exponential TIA-968 lightning Type A Longit. 10/160 μs	IPP ₃	100	A
Waveform 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) 5/310 μs	IPP ₆	90	A
TIA-968 lightning Type B (Voc 9/720us) 5/320 μs	IPP ₇	90	A
Critical Rate of Rise of On-State Current			
Powered 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	110	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/ μs , I _{sc} =900mA, V _{DC} = 500V (both polarities))	VBO	-----	310	365	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)	VT	-----	-----	4.0	V
(PW \leq 300 μs , Duty Cycle \leq 2% (Note 2))					
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, V _D = 0.8 X Rated V _{BO} , T _J = +25°C)	dv/dt	2000	-----	-----	V/ μs
Capacitance (f=1.0 Mhz, 50V _{DC} bias, 1Vrms)	C1	-----	15	-----	pF
(f=1.0 Mhz, 2V _{DC} bias, 1Vrms)	C2	-----	32	-----	pF

Note 1. Allow cooling before test second polarity

Note 2. Measured under pulse conditions to reduce heating

VOLTAGE-CURRENT CHARACTERISTIC

