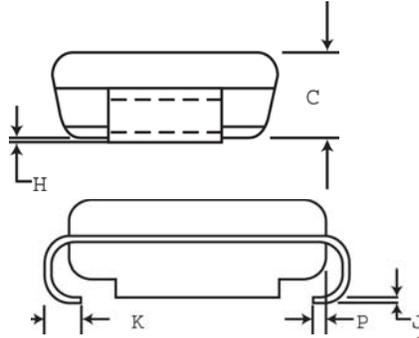
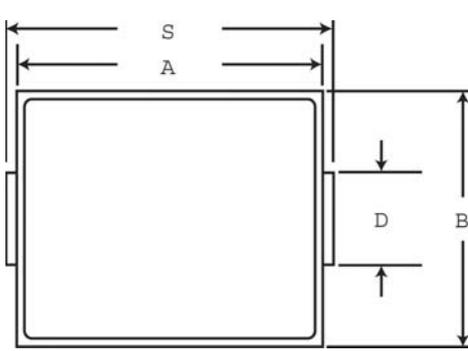
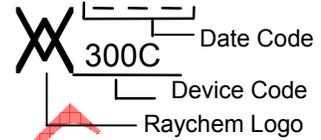


**Specification Status: Released**

**PHYSICAL DESCRIPTION**



**Marking:**



	A		B		C		D**		H		J		K	
mm:	MIN	MAX												
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	
mm:	REF	MIN	MAX
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                      ELV Compliant

Directive 2002/95/EC  
Compliant

Directive 2000/53/EC  
Compliant

**DEVICE RATINGS @ 25° C (Both Polarities)**

Parameter	Symbol	Value	Units
Repetitive Off-State Voltage, Maximum at $I_D = 5 \mu A$	VDM	300	V
Non-Repetitive Peak Telcordia GR-1089 CORE 10x1000 $\mu s$	IPP <sub>1</sub>	100	A
Impulse Current TIA-968 lightning Type A Metallic 10/560 $\mu s$	IPP <sub>2</sub>	150	A
Double exponential TIA-968 lightning Type A Longit. 10/160 $\mu s$	IPP <sub>3</sub>	200	A
Waveform Telcordia GR-1089 Intrabuilding 2/10 $\mu s$	IPP <sub>4</sub>	500	A
(Notes 1 and 2) IEC61000-4-5 (Voc 1.2/50us) 8/20 $\mu s$	IPP <sub>5</sub>	400	A
ITU-T K.20/K.21 (Voc 10/700us) 5/310 $\mu s$	IPP <sub>6</sub>	150	A
TIA-968 lightning Type B (Voc 9/720us) 5/320 $\mu s$	IPP <sub>7</sub>	150	A
Critical Rate of Rise of On-State Current Power Pulse Amplifier, C=30 $\mu F$ , Vmax = 600V	di/dt	500	A/ $\mu s$
Maximum 2x10 $\mu s$ waveform, Voc=2.5kV, Isc=500A peak	di/dt	330	A/ $\mu s$

**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<sub>J</sub> @ 25°C unless otherwise noted)**

Characteristics	Symbol	Min	Typ	Max	Units
Breakover Voltage (+25°C) (dv/dt = 0.4kV/ $\mu s$ , Isc=900mA V <sub>DC</sub> = 500V (both polarities))	VBO	----	350	400	V
Breakover Voltage Temperature Coefficient	dVBO/dTJ	----	0.1	-----	%/°C
Off-State Current (VD1=50V)	ID1	----	-----	2.0	$\mu A$
(VD2=VDM)	ID2=IDM	----	-----	5.0	$\mu A$
On-State Voltage (IT=1A)	VT	----	-----	4.0	V
(PW ≤ 300 $\mu s$ , Duty Cycle ≤ 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	60	----	----	A
Critical Rate of Rise of Off-State Voltage (Linear waveform, V <sub>D</sub> = 0.8 X Rated V <sub>BO</sub> , T <sub>J</sub> = +25°C)	dv/dt	2000	----	----	V/ $\mu s$
Capacitance (f=1.0 MHz, 50Vdc bias, 1Vrms)	C1	----	47	----	pF
(f=1.0 MHz, 2Vdc bias, 1Vrms)	C2	----	98	----	pF

Note 1. Allow cooling before test second polarity

Note 2. Measured under pulse conditions to reduce heating

**VOLTAGE-CURRENT CHARACTERISTIC**
