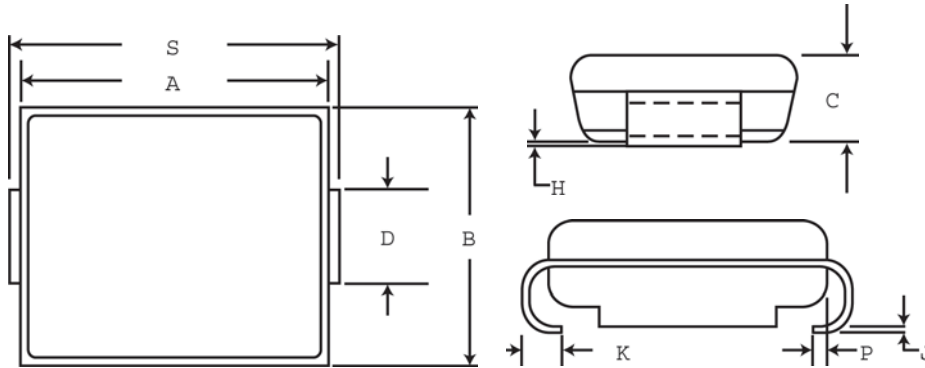
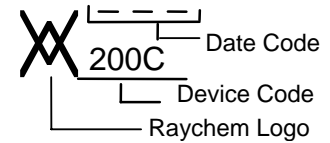


**Specification Status: RELEASED**

**PHYSICAL DESCRIPTION**



**Marking:**



A		B		C		D**		H		J		K	
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
4.06	4.57	3.30	3.81	1.90	2.41	1.96	2.11	0.051	0.152	0.15	0.30	0.76	1.27
(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)

mm:  
in\*:

P	S	
	MIN	MAX
REF	0.51	5.59
	(0.020)	(0.220)

mm:  
in\*:

\* 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 pending  
 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	200	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 Powered Pulse Amplifier, C=30 $\mu F$ , V=600V	di/dt	500	A/ $\mu s$
Maximum 2x10 $\mu s$ waveform, V <sub>OC</sub> =2.5kV, I <sub>SC</sub> =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/ $\mu s$ , I <sub>SC</sub> =900mA, V <sub>dc</sub> = 500V (both polarities))	VBO	----	260	320	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) (PW ≤ 300 $\mu s$ , 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	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 = +25°C)	dv/dt	2000	----	----	V/ $\mu s$
Capacitance (f=1.0 Mhz, 50Vdc bias, 1Vrms)	C1	----	55	----	pF
(f=1.0 Mhz, 2Vdc bias, 1Vrms)	C2	----	115	----	pF

Note 1. Allow cooling before test second polarity

Note 2. Measured under pulse conditions to reduce heating

**VOLTAGE-CURRENT CHARACTERISTIC**

