

X	3R	***	B
XCH	3-Electrode	DC Spark-over Voltage	5x7.6方圆

### Features

- Excellent response to fast rising transients
- Stable breakdown voltage
- Low capacitance and Insertion Loss
- High insulation resistance
- High holdover voltage
- Large absorbing transient current capability

### Applications

- Repeaters, Modems
- Telephone Interface, Line cards.
- Data communication equipment
- Line test equipment

### Mechanical Data

- Size: 5.0mm\*7.6mm
- Surface treatment:Matte-tin plated

### Electrical Characteristics

Part Number	DC Spark-over Voltage	Max. Impulse Spark-over Voltage	Discharge Current	AC Discharge Current	Impulse Life	Minimum Insulation Resistance		Maximum Capacitance
	100V/s	1KV/us	8/20us 10 times	50Hz,1s	10/1000us 100A	DC Test Voltage	GΩ	1MHz
X3R75B	75±30%	600	10	5	300	25	1	1.5
X3R90B	90±30%	600	10	5	300	50	1	1.5
X3R150B	150±20%	650	5	5	300	100	1	1.5
X3R230B	230±20%	700	5	5	300	100	1	1.5
X3R350B	350±20%	900	5	5	300	100	1	1.5
X3R420B	420±20%	900	5	5	300	100	1	1.5
X3R470B	470±20%	1100	5	5	300	250	1	1.5
X3R600B	600±20%	1300	5	5	300	250	1	1.5

Parameter	Conditions	Value	Unit
Glow Voltage	at 10mA	60	V
Arc Voltage	at 1.0A	10	V
Glow to Arc transition Current		0.3	A
Operation and storage temperature		-40 ~ 90	°C

### Test Wave

8/20us, Test wave

$$T1=1.25T=8\mu s \pm 20\%$$

$$T2=20\mu s \pm 20\%$$

10/700us, Test Wave

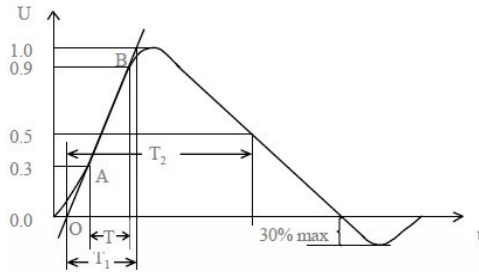
$$T1=1.67T=10\mu s \pm 20\%$$

$$T2=700\mu s \pm 20\%$$

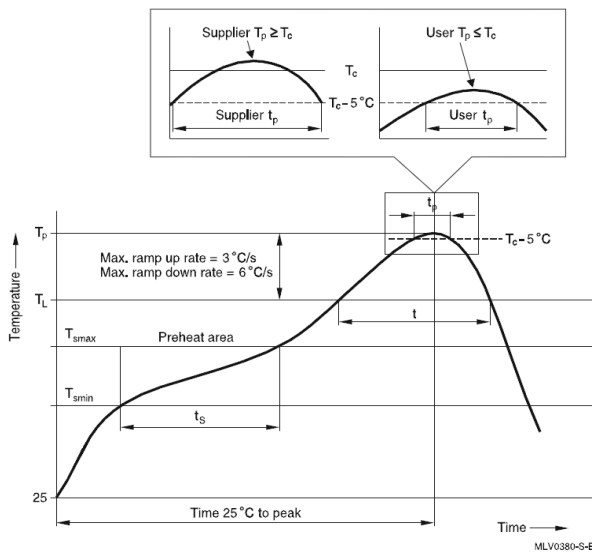
10/1000us, Test Wave

$$T1=1.67T=10\mu s \pm 20\%$$

$$T2=1000\mu s \pm 20\%$$



### Recommended wave soldering profile



Reflow profile features		Sn- Pb eutectic assembly	Pb-free assembly
Preheat and soak - Temperature min - Temperature max - Time	$T_{smin}$ $T_{smax}$ $t_{smin}$ to $t_{smax}$	100 °C 150 °C 60 ... 120 s	150 °C 200 °C 60 ... 180 s
Average ramp-up rate	$T_{smax}$ to $T_p$	max. 3 °C/ s	max. 3 °C/ s
Liquidous temperature Time at liquidous	$T_L$ $t_L$	183 °C 60 ... 150 s	217 °C 60 ... 150 s
Peak package body temperature *, Classification temperature **	$T_p, T_c$	220 ... 235 °C **	245 ... 260 °C **
Time ( $t_p$ ) ** within 5 °C of the specified classification temperature ( $T_c$ )		20 s ***	30 s ***
Average ramp-down rate	$T_p$ to $T_{smax}$	max. 6 °C/ s	max. 6 °C/ s
Time 25 °C to peak temperature		max. 6 min	max. 8 min

\* = Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum.  
 \*\* = For details please refer to JEDEC J-STD-020D.  
 \*\*\* = Tolerance for time at peak profile temperature ( $t_p$ ) is defined as a supplier minimum and a user maximum.

### Device Dimensions

Dimensions are in millimeters

