

X	2R	***	PL
XCH	2-Electrode	DC Spark-over Voltage	Φ8.0x6.0

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: Φ8.0mm*6.0mm
- 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
	V	V	KA	A	times	V		pF
X2R75PL	75±30%	600	10	10	300	50	1	1.5
X2R90PL	90±30%	600	10	10	300	50	1	1.5
X2R150PL	150±20%	650	10	10	300	100	1	1.5
X2R230PL	230±20%	700	10	10	300	100	1	1.5
X2R300PL	300±20%	900	10	10	300	100	1	1.5
X2R350PL	350±20%	950	10	10	300	100	1	1.5
X2R400PL	400±20%	1000	10	10	300	100	1	1.5
X2R470PL	470±20%	1100	10	10	301	100	1	1.5
X2R600PL	600±20%	1300	10	10	302	100	1	1.5
X2R800PL	800±20%	1500	10	10	303	100	1	1.5

Parameter	Conditions	Value	Unit
Arc Voltage	at 1.0A	10	V
Operation and storage temperature		-40 ~ 125	°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

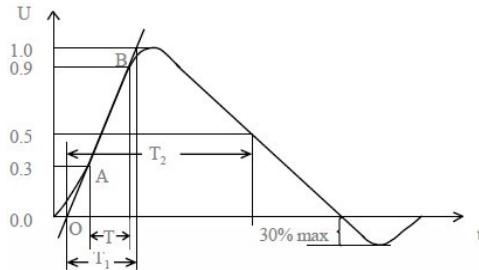
$$T1=1.67T=10\mu s \pm 20\%$$

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

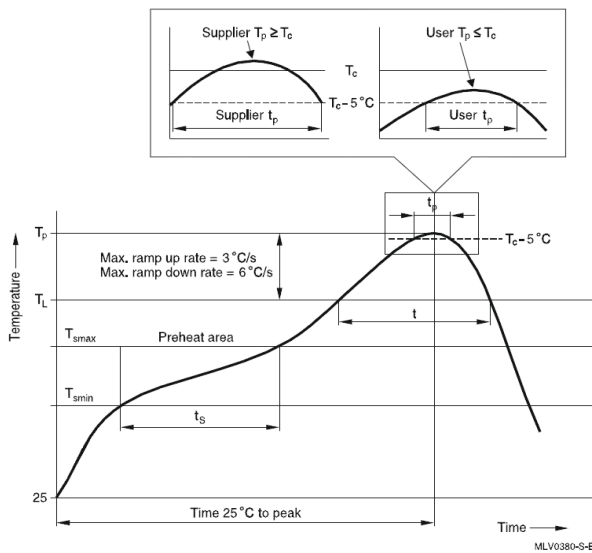
10/1000us, Test Wave

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

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



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

Symbol	Dimension (mm)	
	Spec.	Tolerance
D	8.0	+0.3, -0.5
T	6.0	+0.3, -0.5
d	0.8	±0.1
L	Min.25.0	