3SPC090F

3-Electrode arrester

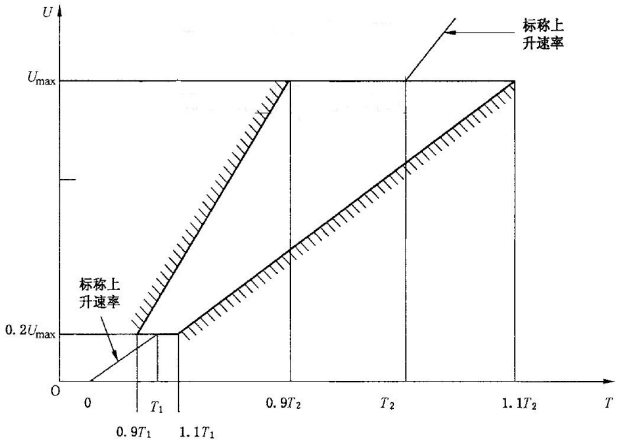
Features	Applications
● Extremely small size	● Splitter
● Extremely fast response time	● PCI Cards
● Excellent SMD handing	● Moden
● Stable performance over life	● Line cards
● Very low capacitance	
● High insulation resistance	
● RoHS-compatible	
● UL-identification,	

Electrical specifications

Part Number	DC spark-over Voltage	Max. Impulse Breakdown Voltage	Discharge Current (8/20us)	AC discharge Current	Impulse Life (10/1000us)	Minimum Insulation Resistance		Max. Capacitance 1MHz
	100V/S	1KV/us	10 times	50Hz,1S	100A			
	%	V	KA	A	Times	Test Voltage DC(V)	(GΩ)	(Pf)
3SPC090F	±30	600	5	5	100	50	1	1

Glow Voltage at 10mA	~60V
Arc Voltage at 1A	~10V
Glow to Arc transition Current	~0.3A
Weight	~0.88g
Operation and storage temperature	-40~90°C
Climatic category (IEC 60068-1)	40/90/21
Surface treatment	Matte-tin plated

DC breakdown voltage



8/20us, Test wave

T1=1.25T=8us±20%

T2=20us±20%

10/700us,Test Wave

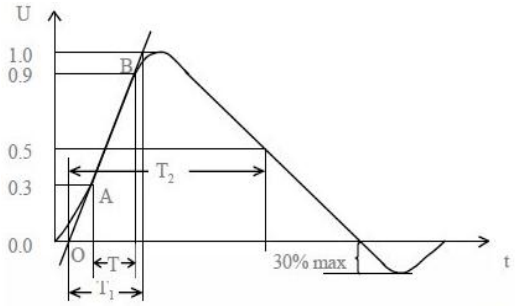
T1=1.67T=10us±20%

T2=700us±20%

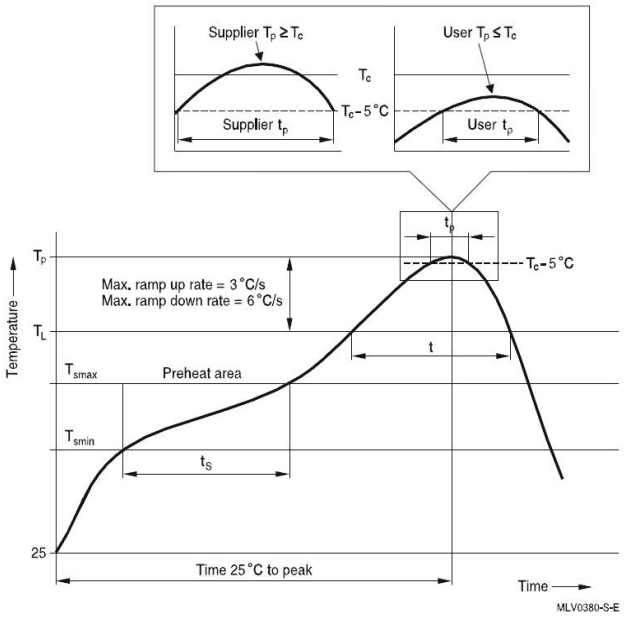
10/1000us,Test Wave

T1=1.67T=10us±20%

T2=1000us±20%



Recommended wave soldering profile

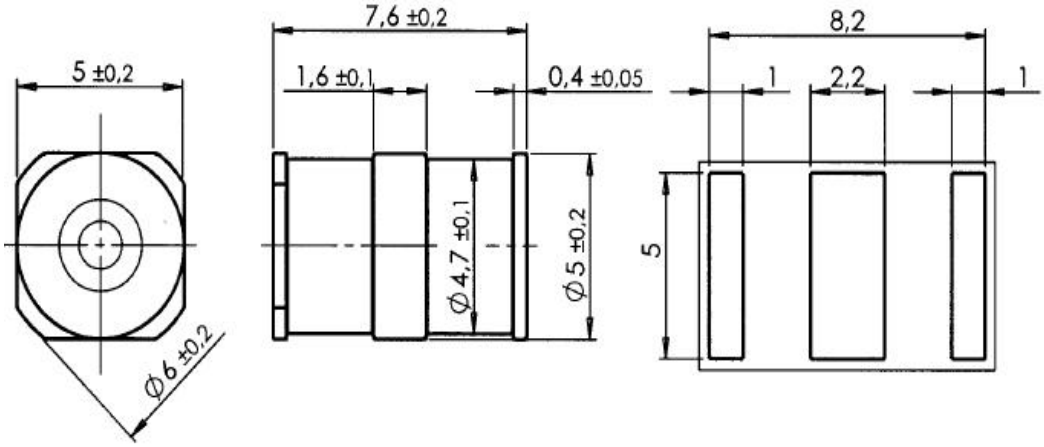


Reflow profile features		Sn- Pb eutectic assembly	Pb-free assembly
Preheat and soak - Temperature min - Temperature max - Time	 T_{smin} T_{smax} t_{smin} to t_{smax}	 100 °C 150 °C 60 ... 120 s	 150 °C 200 °C 60 ... 180 s
Average ramp-up rate	T_{smax} to T_p	max. 3 °C/ s	max. 3 °C/ s
Liquidous temperature 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.

1) Sampling size in accordance to AQL(C=0)
2) DC spark-over voltage ±30% after load
3) Tests according to ITU-T Rec. K. 12 and IEC61643-1

Dimensions



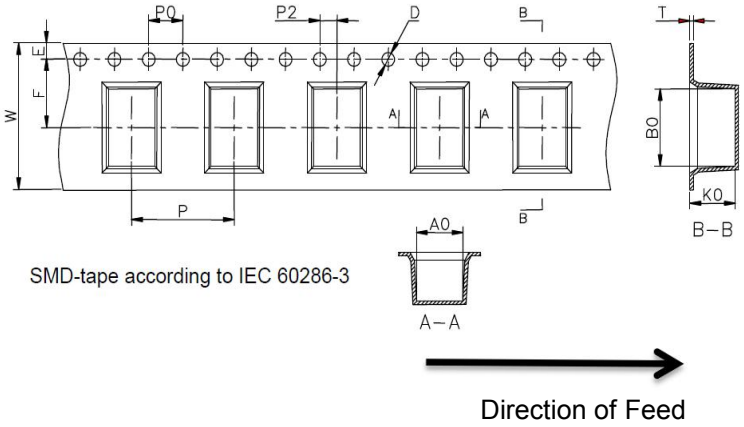
Tin-plated

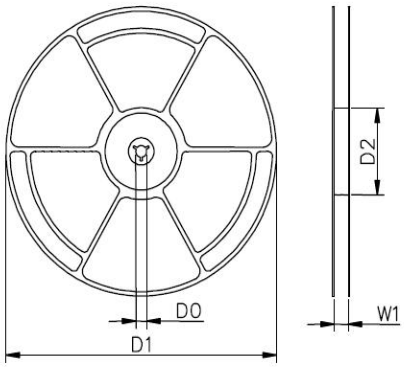
Part Number Code

	3	R	1	5	0	B
JuX ing	3R series		DC Voltage			B:5*7.6

Packaging

1000PCS/reel





Symbol	Millimeters	Inches
W	16±0.3	0.630±0.012
A0	5.4±0.1	0.213±0.004
B0	8.4±0.1	0.331±0.004
K0	5.3±0.1	0.209±0.004
P	8±0.1	0.472±0.004
F	7.5±0.1	0.295±0.004
E	1.75±0.1	0.069±0.004
D	1.5+0.1/-0.0	0.059+0.004/-0.0
P0	4±0.1	0.157±0.004
P2	2±0.1	0.079±0.004
T	0.4±0.1	0.016±0.004
D0	13.3±0.15	0.524±0.006
D1	330±2	12.992±0.079
D2	100+1/-2	3.937+0.039/-0.079
W1	16.5±0.4	0.65±0.016

Cautions and warnings

- Surge arresters must not be operated directly in power supply networks
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- If the contacts of the surge arrester are defective, current stress can lead to the formation of sparks and loud noises.
- Surge arresters may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.