32D Series
METAL OXIDE VARISTORS

Features

- Wide operating voltage (V_{1mA}) range from 200V to 1200V.
- Fast responding to transient over-voltage.
- Large absorbing transient energy capability.
- Low clamping ratio and no following-on current.



General Information

- Surge protection in consumer electronics
- Surge protection in industrial electronics
- Relay and electromagnetic valve surge absorption
- Transistor, diode, IC, thyristor or triac semiconductor protection
- Surge protection in electronic home appliances, gas and petroleum appliances

General Characteristics

- Body: Nickel Plated
- Devices with No Leads: Nickel Plated
- Operating Temperature: -40ºC to +85ºC
- Storage Temperature: -40 ºC to +125ºC
- Axial Devices: Tin Plated

Part Number Code

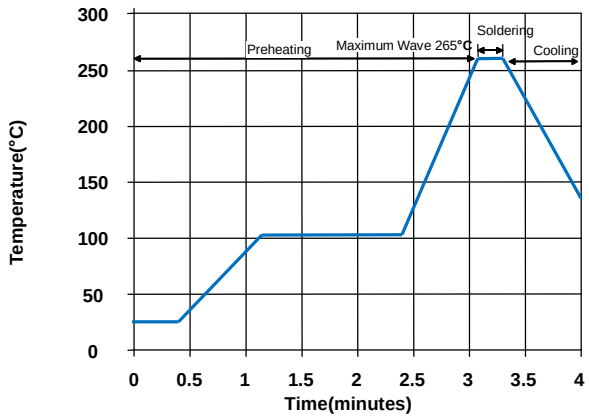
3	2	D	4	7	1	K

Element Diameter	Type	Nominal Varistor Voltage	Varistor Voltage Tolerance
	D:Disk	471=47*10^1V	K = ±10 %

Electrical Characteristics

Type Number	Varistor Voltage	Max. Allowable Voltage		Max. Energy (10/1000μs)	Max. Clamping Voltage (8/20μs)		Max. Peak Current (8/20μs)	Typical Capacitance (Reference)
	V_{1mA}(V)	V_{AC}(V)	V_{DC}(V)	(J)	I_P(A)	V_C(V)	I(A)	@1KHz(pf)
32D201K	185~225	130	170	250	200	340	30000	5200
32D241K	216~264	150	200	290	200	395	30000	5100
32D271K	243~297	175	225	300	200	455	30000	4800
32D301K	270~330	190	250	330	200	500	30000	4500
32D331K	297~363	210	275	360	200	550	30000	4300
32D361K	324~396	230	300	380	200	595	30000	3900
32D391K	351~429	250	320	400	200	650	30000	3200
32D431K	387~473	275	350	430	200	710	30000	3100
32D471K	423~517	300	385	460	200	775	30000	2800
32D511K	459~561	320	415	510	200	845	30000	2700
32D621K	558~682	385	505	570	200	1025	30000	2400
32D681K	612~748	420	560	600	200	1120	30000	2200
32D751K	675~825	460	615	620	200	1240	30000	2000
32D781K	702~858	485	640	660	200	1290	30000	1900
32D821K	738~902	510	670	700	200	1355	30000	1800
32D911K	819~1001	550	745	750	200	1500	30000	1300
32D951K	855~1045	575	765	780	200	1570	30000	1200
32D102K	900~1100	625	825	810	200	1650	30000	1100
32D112K	990~1210	680	895	910	200	1815	30000	1000
32D122K	1080~1320	750	990	960	200	1980	30000	920

Wave Lead Free Soldering Recommendation

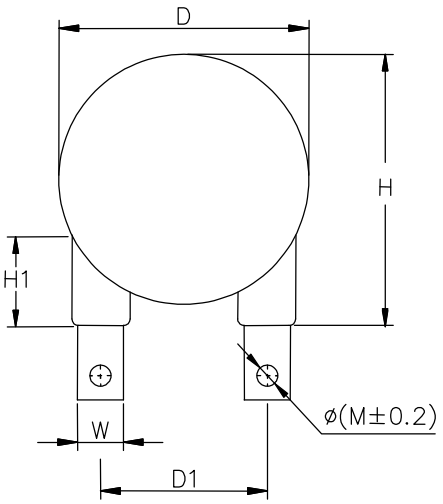


Item	Conditions
Peak Temperature	265ºC
Dipping Time	10 seconds (max.)
Soldering	1 time

Recommendation Reworking Conditions with Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	360ºC (max.)
Soldering Time	3 seconds (max.)
Distance from Varistor	2mm (min.)

Dimensions



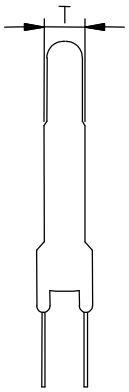


TABLE 1		
Symbol	**Millimeters**	**Inches**
H(max)	40.0	1.575
H1(max.)	5.0	0.197
D(max)	35	1.378
D1(±1.0)	25.4	1
T(max)	TABLE 2	
W	7.0x0.5	0.276x0.02
Φ(M±0.2)	3.0	0.118

TABLE 2---T(max.)

Model	Millimete	Inches	Model	Millimeters	Inches	Model	Millimeters	nches
201K	6.4	0.252	431K	8.0	0.315	821K	10.8	0.425
241K	6.7	0.264	471K	8.3	0.327	911K	11.2	0.441
271K	6.9	0.272	511K	8.7	0.343	951K	11.0	0.433
301K	7.1	0.28	621K	9.4	0.37	102K	11.2	0.441
331K	7.3	0.287	681K	9.5	0.374	112K	12.3	0.484
361K	7.6	0.299	751K	10.0	0.394	122K	13.0	0.512
391K	7.8	0.307	781K	10.2	0.402			