

JNR VARISTOR

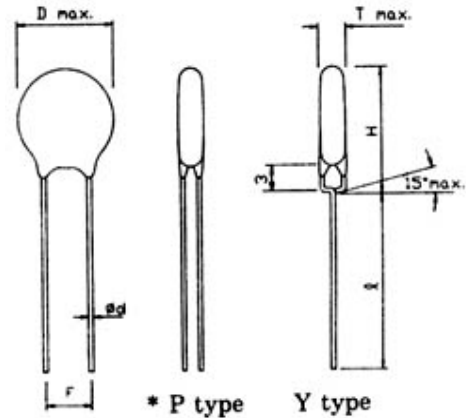
METAL OXIDE VARISTOR

PART DIMENSIONS - DIMENSION OF COMPONENT

Dimension Table

measure:m/m

Dia Code	5 ϕ	7 ϕ	10 ϕ	14 ϕ	20 ϕ
D max.	7.5	9	13.5	17	23
d(± 0.02)	0.6	0.6	0.8	0.8	1
F(± 1.0)	5	5	7.5	7.5	10
H max.	11	12	15.5	20.5	28
L min.	25	25	25	25	25



Temperature range: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Storage temperature: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

Temperature coefficient of voltage: $-0.05\% / ^{\circ}\text{C}$

OPTION:

- P type lead wire is the standard products.
- If you have other requirement, please contact us.

T max. Table

Dia Voltage	5 ϕ	7 ϕ	10 ϕ	14 ϕ	20 ϕ	Dia Voltage	5 ϕ	7 ϕ	10 ϕ	14 ϕ	20 ϕ
180K	4	4	4	4	4	301K	6	6	6	6	6
220K	5	5	5	5	5	331K	6	6	6	6	6
270K	5	5	5	5	5	361K	6	6	6	6	6
330K	5	5	5	5	5	391K	6	6	6	6	6
390K	5	5	5	5	5	431K	6	6	6	6	6
470K	5	5	5	5	5	471K	6	6	6	6	6
560K	5	5	5	5	5	511K	6	6	6	6	6
680K	5	5	5	5	5	561K	6	6	6	6	6
820K	5	5	5	5	5	621K			6	6	6
101K	5	5	5	5	5	681K			7	7	7
121K	5	5	5	5	5	751K			7	7	7
151K	5	5	5	5	5	781K			7	7	7
181K	5	5	5	5	5	821K			7	7	7
201K	5	5	5	5	5	911K			7	7	7
221K	5	5	5	5	5	102K			8	8	8
241K	5	5	5	5	5	112K			8	8	8
271K	5	5	5	5	5	182K			10	10	10

METAL OXIDE VARISTOR SPECIFICATION - 5 ϕ JNR VARISTOR



Spec. Part No.	Varistor Voltage V _{0.1mA} (V)		Maximum allowable Voltage		Maximum Clamping Voltage V _{5A} (V)max	Withstanding Surge Current (8/20 μ s)		Rated Wattage (W)	Energy 10/100 μ s (J)	Typical Capacitance 1KHz (PF)	UL	CSA
			ACrms (V)	DC (V)		1 Time (A)	2 Time (A)					
JNR-5D180K	18	(16-20)	11	14	40	100	50	0.01	0.6	2,400		
JNR-5D220K	22	(20-24)	14	18	48	100	50	0.01	0.7	1,800	★	
JNR-5D270K	27	(24-30)	17	22	60	100	50	0.01	0.9	1,500	★	
JNR-5D330K	33	(30-36)	20	26	73	100	50	0.01	1.1	1,200	★	
JNR-5D390K	39	(35-43)	25	31	86	100	50	0.01	1.2	1,000	★	
JNR-5D470K	47	(42-52)	30	38	104	100	50	0.01	1.5	850	★	
JNR-5D560K	56	(50-62)	35	45	123	100	50	0.01	1.8	700	★	
JNR-5D680K	68	(61-75)	40	56	150	100	50	0.01	2.1	560	★	
JNR-5D820K	82	(74-90)	50	65	145	400	200	0.1	2.8	480	★	
JNR-5D101K	100	(90-110)	60	85	175	400	200	0.1	3.5	420	★	
JNR-5D121K	120	(108-132)	75	100	210	400	200	0.1	4	360	★	
JNR-5D151K	150	(135-165)	95	125	260	400	200	0.1	5.5	280	★	
JNR-5D181K	180	(162-198)	115	150	320	400	200	0.1	6.5	200	★	
JNR-5D201K	200	(185-225)	130	170	355	400	200	0.1	7.1	160	★	★
JNR-5D221K	220	(198-242)	140	180	380	400	200	0.1	7.8	100	★	★
JNR-5D241K	240	216-264)	150	200	415	400	200	0.1	8.4	80	★	★
JNR-5D271K	270	247-303)	175	225	475	400	200	0.1	9.9	75	★	★
JNR-5D301K	300	(270-330)	195	250	525	400	200	0.1	10.5	66	★	★
JNR-5D331K	330	(297-363)	210	275	575	400	200	0.1	11.5	60	★	★
JNR-5D361K	360	(324-396)	230	300	620	400	200	0.1	13	55	★	★
JNR-5D391K	390	(351-429)	250	320	675	400	200	0.1	15	53	★	★
JNR-5D431K	430	(387-473)	275	350	745	400	200	0.1	16.5	50	★	★
JNR-5D471K	470	(423-517)	300	385	810	400	200	0.1	17.5	45	★	★
JNR-5D511K	510	(459-561)	320	418	842	400	200	0.1	19	42	★	★
JNR-5D561K	560	(504-616)	350	460	920	400	200	0.1	20	40	★	★

The clamping voltage from 180K to 680K is tested with current 1A



METAL OXIDE VARISTOR

SPECIFICATION - 7ø JNR VARISTOR

Spec. Part No.	Varistor Voltage V _{0.1mA} (V)		Maximum allowable Voltage		Maximum Clamping Voltage V _{5A} (V)max	Withstanding Surge Current (8/20us)		Rated Wattag (W)	Energy 10/100us (J)	Typical Capacitance 1KHz (PF)	UL	CSA
			ACrms (V)	DC (V)		1 Time (A)	2 Time (A)					
	JNR-7D180K	18	(16-20)	11	14	38	250	125	0.02	1.2	3,500	
JNR-7D220K	22	(20-24)	14	18	43	250	125	0.02	1.4	2,800	★	
JNR-7D270K	27	(24-30)	17	22	53	250	125	0.02	1.7	2,200	★	
JNR-7D330K	33	(30-36)	20	26	65	250	125	0.02	2.2	1,800	★	
JNR-7D390K	39	(35-43)	25	31	77	250	125	0.02	2.4	1,450	★	
JNR-7D470K	47	(42-52)	30	38	93	250	125	0.02	3	1,150	★	
JNR-7D560K	56	(50-62)	35	45	110	250	125	0.02	3.5	1,050	★	
JNR-7D680K	68	(61-75)	40	56	135	250	125	0.02	4.3	970	★	
JNR-7D820K	82	(74-90)	50	65	135	1200	600	0.25	5.5	930	★	
JNR-7D101K	100	(90-110)	60	85	165	1200	600	0.25	7	860	★	
JNR-7D121K	120	(108-132)	75	100	200	1200	600	0.25	8	670	★	
JNR-7D151K	150	(135-165)	95	125	250	1200	600	0.25	11	490	★	
JNR-7D181K	180	(162-198)	115	150	300	1200	600	0.25	13	330	★	
JNR-7D201K	200	(185-225)	130	170	340	1200	600	0.25	14.3	240	★	★
JNR-7D221K	220	(198-242)	140	180	360	1200	600	0.25	15.5	190	★	★
JNR-7D241K	240	(216-264)	150	200	395	1200	600	0.25	16.8	165	★	★
JNR-7D271K	270	(247-303)	175	225	455	1200	600	0.25	19.8	150	★	★
JNR-7D301K	300	(270-330)	195	250	505	1200	600	0.25	21	135	★	★
JNR-7D331K	330	(297-363)	210	275	550	1200	600	0.25	23	130	★	★
JNR-7D361K	360	(324-396)	230	300	595	1200	600	0.25	26	125	★	★
JNR-7D391K	390	(351-429)	250	320	650	1200	600	0.25	30	105	★	★
JNR-7D431K	430	(387-473)	275	350	710	1200	600	0.25	33	100	★	★
JNR-7D471K	470	(423-517)	300	385	775	1200	600	0.25	35	90	★	★
JNR-7D511K	510	(459-561)	320	418	842	1200	600	0.25	37	80	★	★
JNR-7D561K	560	(504-616)	350	460	920	1200	600	0.25	39	75	★	★

The clamping voltage from 180K to 680K is tested with current 2.5A

METAL OXIDE VARISTOR



SPECIFICATION - 10ø JNR VARISTOR

Spec. Part No.	Varistor Voltage V _{0.1mA}		Maximum allowable Voltage		Maximum Clamping Voltage V _{5A} (V)max	Withstanding Surge Current (8/20us)		Rated Wattage (W)	Energy 10/100us (J)	Typical Capacitance 1KHz (PF)	UL	CSA
	(V)	(V)	ACrms (V)	DC (V)		1 Time (A)	2 Time (A)					
JNR-10D180K	18	(16-20)	11	14	38	500	250	0.05	2.4	7,500		
JNR-10D220K	22	(20-24)	14	18	43	500	250	0.05	2.7	6,000	★	
JNR-10D270K	27	(24-30)	17	22	53	500	250	0.05	3.5	4,800	★	
JNR-10D330K	33	(30-36)	20	26	65	500	250	0.05	4.4	4,200	★	
JNR-10D390K	39	(35-43)	25	31	77	500	250	0.05	4.7	3,700	★	
JNR-10D470K	47	(42-52)	30	38	93	500	250	0.05	6	3,300	★	
JNR-10D560K	56	(50-62)	35	45	110	500	250	0.05	7	2,900	★	
JNR-10D680K	68	(61-75)	40	56	135	500	250	0.05	8.5	2,500	★	
JNR-10D820K	82	(74-90)	50	65	135	2500	1250	0.4	11	2,100	★	
JNR-10D101K	100	(90-110)	60	85	165	2500	1250	0.4	14	1,700	★	
JNR-10D121K	120	(108-132)	75	100	200	2500	1250	0.4	16	1,500	★	
JNR-10D151K	150	(135-165)	95	125	250	2500	1250	0.4	22	1,300	★	
JNR-10D181K	180	(162-198)	115	150	300	2500	1250	0.4	26	470	★	
JNR-10D201K	200	(185-225)	130	170	340	2500	1250	0.4	28.5	430	★	★
JNR-10D221K	220	(198-242)	140	180	360	2500	1250	0.4	31	390	★	★
JNR-10D241K	240	(216-264)	150	200	395	2500	1250	0.4	33.5	360	★	★
JNR-10D271K	270	(247-303)	175	225	455	2500	1250	0.4	39.5	330	★	★
JNR-10D301K	300	(270-330)	195	250	505	2500	1250	0.4	42	290	★	★
JNR-10D331K	330	(297-363)	210	275	550	2500	1250	0.4	46	280	★	★
JNR-10D361K	360	(324-396)	230	300	595	2500	1250	0.4	52	260	★	★
JNR-10D391K	390	(351-429)	250	320	650	2500	1250	0.4	60	240	★	★
JNR-10D431K	430	(387-473)	275	350	710	2500	1250	0.4	66	220	★	★
JNR-10D471K	470	(423-517)	300	385	775	2500	1250	0.4	70	190	★	★
JNR-10D511K	510	(459-561)	320	418	842	2500	1250	0.4	74	180	★	★
JNR-10D561K	560	(504-616)	350	460	920	2500	1250	0.4	78	180	★	★
JNR-10D621K	620	(558-682)	385	505	1,025	2500	1250	0.4	82	160	★	★
JNR-10D681K	680	(612-748)	420	560	1,120	2500	1250	0.4	86	140	★	★
JNR-10D751K	750	(675-825)	460	615	1,240	2500	1250	0.4	90	130	★	★
JNR-10D781K	780	(702-858)	485	640	1,290	2500	1250	0.4	92	130	★	★
JNR-10D821K	820	(728-902)	510	670	1,355	2500	1250	0.4	94	130	★	★
JNR-10D911K	910	(819-1001)	550	745	1,500	2500	1250	0.4	102	120	★	★
JNR-10D102K	1000	(900-1100)	625	825	1,650	2500	1250	0.4	112	100	★	★
JNR-10D112K	1100	(990-1210)	680	895	1,815	2500	1250	0.4	124	90	★	★

The clamping voltage from 180K to 680K is tested with current 5A



METAL OXIDE VARISTOR

SPECIFICATION - 14ø JNR VARISTOR

Spec. Part No.	Varistor Voltage V _{0.1mA}		Maximum allowable Voltage		Maximum Clamping Voltage V _{5A} (V)max	Withstanding Surge Current (8/20us)		Rated Wattage (W)	Energy 10/100us (J)	Typical Capacitance 1KHz (PF)	UL	CSA
	(V)	(V)	ACrms (V)	DC (V)		1 Time (A)	2 Time (A)					
	JNR-14D180K	18	(16-20)	11	14	38	1000	500	0.1	4.7	18,000	
JNR-14D220K	22	(20-24)	14	18	43	1000	500	0.1	5.4	15,000	★	
JNR-14D270K	27	(24-30)	17	22	53	1000	500	0.1	6.9	10,000	★	
JNR-14D330K	33	(30-36)	20	26	65	1000	500	0.1	8.8	8,500	★	
JNR-14D390K	39	(35-43)	25	31	77	1000	500	0.1	9.4	7,500	★	
JNR-14D470K	47	(42-52)	30	38	93	1000	500	0.1	12	6,500	★	
JNR-14D560K	56	(50-62)	35	45	110	1000	500	0.1	14	5,600	★	
JNR-14D680K	68	(61-75)	40	56	135	1000	500	0.1	17	4,700	★	
JNR-14D820K	82	(74-90)	50	65	135	4500	2500	0.6	22	3,900	★	
JNR-14D101K	100	(90-110)	60	85	165	4500	2500	0.6	28	3,400	★	
JNR-14D121K	120	(108-132)	75	100	200	4500	2500	0.6	32	3,100	★	
JNR-14D151K	150	(135-165)	95	125	250	4500	2500	0.6	44	3,000	★	
JNR-14D181K	180	(162-198)	115	150	300	4500	2500	0.6	52	1,030	★	
JNR-14D201K	200	(195-225)	130	170	340	4500	2500	0.6	57	970	★	★
JNR-14D221K	220	(198-242)	140	180	360	4500	2500	0.6	62	840	★	★
JNR-14D241K	240	(216-264)	150	200	395	4500	2500	0.6	67	710	★	★
JNR-14D271K	270	(247-303)	175	225	455	4500	2500	0.6	79	650	★	★
JNR-14D301K	300	(270-330)	195	250	505	4500	2500	0.6	84	600	★	★
JNR-14D331K	330	(297-363)	210	275	550	4500	2500	0.6	92	550	★	★
JNR-14D361K	360	(324-396)	230	300	595	4500	2500	0.6	104	500	★	★
JNR-14D391K	390	(351-429)	250	320	650	4500	2500	0.6	120	480	★	★
JNR-14D431K	430	(387-473)	275	350	710	4500	2500	0.6	132	440	★	★
JNR-14D471K	470	(423-517)	300	385	775	4500	2500	0.6	140	420	★	★
JNR-14D511K	510	(459-561)	320	418	842	4500	2500	0.6	148	390	★	★
JNR-14D561K	560	(504-616)	350	460	920	4500	2500	0.6	156	360	★	★
JNR-14D621K	620	(558-682)	385	505	1,025	4500	2500	0.6	164	320	★	★
JNR-14D681K	680	(612-748)	420	560	1,120	4500	2500	0.6	172	290	★	★
JNR-14D751K	750	(685-825)	460	615	1,240	4500	2500	0.6	180	260	★	★
JNR-14D781K	780	(702-858)	485	640	1,290	4500	2500	0.6	184	230	★	★
JNR-14D821K	820	(738-902)	510	670	1,355	4500	2500	0.6	188	230	★	★
JNR-14D911K	910	(819-1001)	550	745	1,500	4500	2500	0.6	204	200	★	★
JNR-14D102K	1000	(900-1100)	625	825	1,650	4500	2500	0.6	224	180	★	★
JNR-14D112K	1100	(990-1210)	680	895	1,850	4500	2500	0.6	248	150	★	★
JNR-14K182K	1800	(1620-1980)	1000	1465	2,970	4500	2500	0.6	342	120	★	★

The clamping voltage from 180K to 680K is tested with current 10A

METAL OXIDE VARISTOR SPECIFICATION - 20ø JNR VARISTOR



Spec. Part No.	Varistor Voltage V _{0.1mA}		Maximum allowable Voltage		Maximum Clamping Voltage	Withstanding Surge Current (8/20us)		Rated Wattage (W)	Energy 10/100us (J)	Typical Capacitance 1KHz (PF)	UL	CSA
	(V)	(16-20)	ACrms (V)	DC (V)	V _{5A} (V)max	1 Time (A)	2 Time (A)					
JNR-20D180K	18	(16-20)	11	14	38	2,000	1,000	0.2	9.4	39,000		
JNR-20D220K	22	(20-24)	11	18	43	2,000	1,000	0.2	10.8	32,000	★	
JNR-20D270K	27	(24-30)	17	22	53	2,000	1,000	0.2	13.8	22,000	★	
JNR-20D330K	33	(30-36)	20	26	65	2,000	1,000	0.2	17.5	18,000	★	
JNR-20D390K	39	(35-43)	25	31	77	2,000	1,000	0.2	18.6	16,000	★	
JNR-20D470K	47	(42-52)	30	38	93	2,000	1,000	0.2	23.5	14,000	★	
JNR-20D560K	56	(50-62)	35	45	110	2,000	1,000	0.2	27	12,000	★	
JNR-20D680K	68	(61-75)	40	56	135	2,000	1,000	0.2	43.2	10,000	★	
JNR-20D820K	82	(74-90)	50	65	135	6,500	4,000	1	44	5,800	★	
JNR-20D101K	100	(90-110)	60	85	165	6,500	4,000	1	56	4,800	★	
JNR-20D121K	120	(108-132)	75	100	200	6,500	4,000	1	64	3,800	★	
JNR-20D151K	150	(135-165)	95	125	250	6,500	4,000	1	88	3,000	★	
JNR-20D181K	180	(162-198)	115	150	300	6,500	4,000	1	104	2,600	★	
JNR-20D201K	200	(185-225)	130	170	340	6,500	4,000	1	114	2,400	★	★
JNR-20D221K	220	(198-242)	140	180	360	6,500	4,000	1	124	1,800	★	★
JNR-20D241K	240	(216-264)	150	200	395	6,500	4,000	1	134	1,500	★	★
JNR-20D271K	270	(247-303)	175	225	455	6,500	4,000	1	155	1,400	★	★
JNR-20D301K	300	(270-330)	195	250	505	6,500	4,000	1	168	1,350	★	★
JNR-20D331K	330	(297-363)	210	275	550	6,500	4,000	1	184	1,300	★	★
JNR-20D361K	360	(324-396)	230	300	595	6,500	4,000	1	208	1,250	★	★
JNR-20D391K	390	(351-429)	250	320	650	6,500	4,000	1	240	1,180	★	★
JNR-20D431K	430	(387-473)	275	350	710	6,500	4,000	1	364	1,100	★	★
JNR-20D471K	470	(423-517)	300	385	775	6,500	4,000	1	280	1,050	★	★
JNR-20D511K	510	(459-561)	320	418	842	6,500	4,000	1	296	1,000	★	★
JNR-20D561K	560	(504-616)	350	460	920	6,500	4,000	1	312	970	★	★
JNR-20D621K	620	(558-682)	385	505	1,025	6,500	4,000	1	328	950	★	★
JNR-20D681K	680	(612-748)	420	560	1,120	6,500	4,000	1	344	900	★	★
JNR-20D751K	750	(675-825)	460	615	1,240	6,500	4,000	1	360	850	★	★
JNR-20D781K	780	(702-858)	485	640	1,290	6,500	4,000	1	368	750	★	★
JNR-20D821K	820	(738-902)	510	670	1,355	6,500	4,000	1	376	700	★	★
JNR-20D911K	910	(819-1001)	550	745	1,500	6,500	4,000	1	408	600	★	★
JNR-20D102K	1000	(900-1100)	625	825	1,650	6,500	4,000	1	448	500	★	★
JNR-20D112K	1100	(990-1210)	680	895	1,815	6,500	4,000	1	496	450	★	★
JNR-20D182K	1800	(1620-1980)	1,000	1,465	2,970	6,500	4,000	1	682	220	★	★

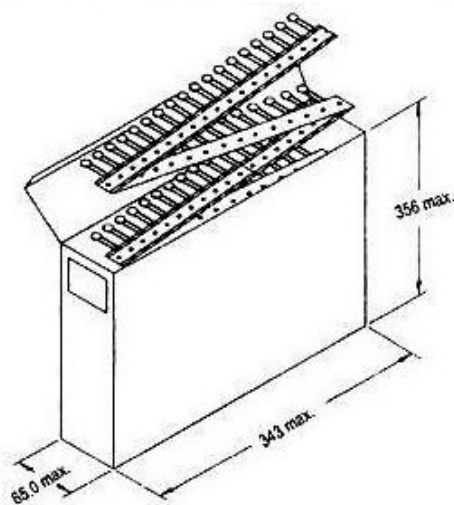
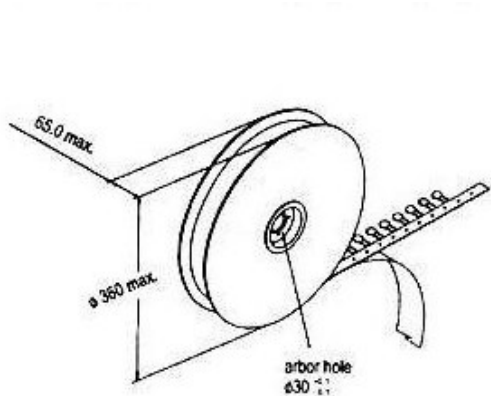
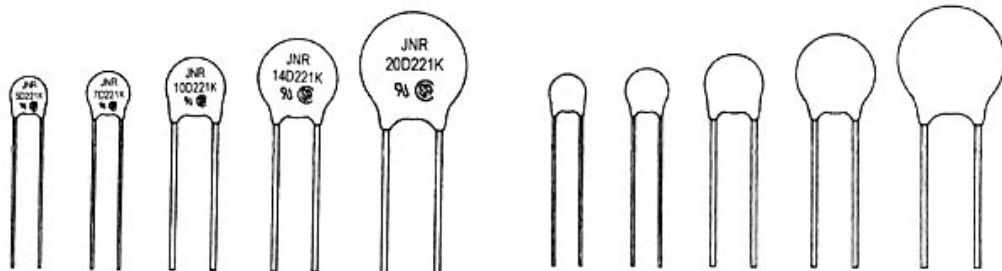
The clamping voltage from 180K to 680K is tested with current 25A

JNR VARISTOR



METAL OXIDE VARISTOR

MARKING AND PACKING

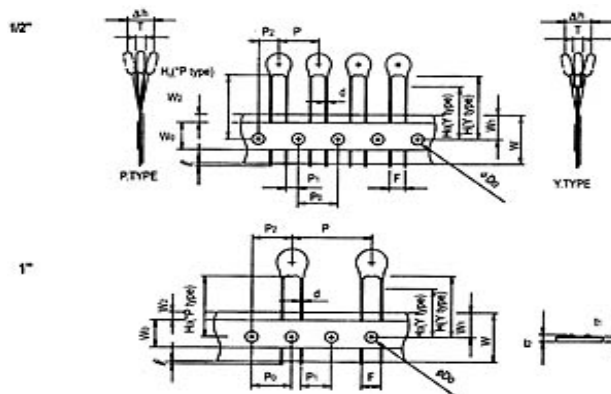


Quantity per Package Unit

Series	Bulk	Reel/Ammo
5	200	1000
7	200	1000
10	200	1000
14	200	1000
20	200	inquiry



METAL OXIDE VARISTOR DIMENSION OF TAPING PRODUCT



Sb	Item	5 ϕ 7 ϕ 10 ϕ	14 ϕ 20 ϕ
I	Cut out length	1.1mm max.	1.1mm max.
H(Y type)	Height of component	20.0mm max.	21.5mm max.
H0(Y type)	Height to seating plane	16.0 \pm 0.5mm	16.0 \pm 0.5mm
H0(P type)	height of component from hole center	16.0mm~21.0mm	16.0mm~21.0mm
h	Front to back deviation	0 \pm 2.0mm	0 \pm 2.0mm
W	Carrier tape width	18 +1/-0.5 mm	18 +1/-0.5 mm
W0	Hole down tape width	6.0mm min	6.0mm min
W1	Sprocket hole position	9 +0.75/-0.5 mm	9 +0.0/-0.2 mm
W2	Adhesive tape position	3.0mm max.	3.0mm max.
F	Component lead spacing	5 +0.8/-0.2 mm	7.5 +0.0/-0.2 mm
P	Pitch of component	12.7 \pm 0.3mm	25.4 \pm 0.3mm
P0	Sprocket hole pitch	12.7 \pm 0.3mm	12.7 \pm 0.3mm
P1	Lead length from hole center to lead	3.85 \pm 0.7mm	8.95 \pm 0.7mm
P2	Length from hole center to disk center	6.38 \pm 1.3mm	12.7 \pm 1.3mm
D0	Sprocket hole diameter	4.0 \pm 0.2mm	4.0 \pm 0.2mm
d	Lead wire diameter	0.6 \pm 0.05mm	0.8 \pm 0.05mm
T	Disk thickness	See T max. Table	See T max. Table
t1	Total thickness	0.7 \pm 0.2mm	0.7 \pm 0.2mm
t2	Total thickness tape with tape	1.6mm max.	1.8mm max.