

# Surface-Mount Devices

## Varistors



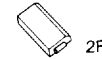
Type No.	Absolute Maximum Ratings				Electrical Characteristics (Ta=25°C)						Outline	
	IF [mA]	IFSM [A]	Tstg [°C]	Tj [°C]	VF1 [V]	IF1 [mA]	VF2 [V]	IF2 [mA]	VF3 [V]	IF3 [mA]	Package	Fig.
☆ VR61F1*1	370	7.5	-55~150	150	2.3±0.25	1	2.75±0.25	10	3.1±0.25	70	1F	72
☆ VRYA6*2	310	8	-30~125	125	2.3±0.25	1	2.75±0.25	10	3.1±0.25	70	1Y	29
15*2	140	6.5			5.75±0.62		6.875±0.625		7.75±0.62			

\*1: On alumina substrate

\*2: On alumina substrate, 1 element operation.

☆: New products

## Transient Surge Suppressors



Type No.	Absolute Maximum Ratings					Electrical Characteristics					Outline			
	VDRM [V]	ITSM [A]	Conditions [μs]	Tstg [°C]	Tj [°C]	VBO (min) [V]	IDRM (max) [μA]	Conditions Vd [V]	IH (min) [mA]	Cj (max) [pF]	Package	Fig.		
☆ KL3Z07	5	30	10 / 1000	-40~125	125	5.5	10	5	50	100*	1F	72		
☆ 18	15					15.5		15						
☆ KL3LU06	48	30	10 / 1000	-40~125	125	55	10	48	100	90				
☆ KL3L07	58	30	10 / 1000	-40~125	125	65	10	58	100	90				
☆ KL3LU07						65		58						
☆ 08						70		63						
☆ KL3N14	120	30	10 / 1000	-40~125	125	130	10	120	100	50				
☆ KL3R20	180	30	10 / 1000	-40~125	125	190	10	180	100	30				
☆ 25	190					220		190						
☆ KP4L07	58	40	10 / 1000	-40~125	125	65	10	58	100	90	2F	73		
08	63					70		63						
KP4N12	100	40	10 / 1000	-40~125	125	110	10	100	100	50				
☆ 14	120					130		120						
☆ KP4R25	190	40	10 / 1000	-40~125	125	220	10	190	100	30				
☆ KP8LU07	58	80	10 / 1000	-40~125	125	65	10	58	100	100				
KP10L06	48	100	10 / 1000	-40~125	125	55	10	48	100	180	2F	73		
07	58					58		58						
KP10LU07	58					65		58					100	180
KP10LU08	63	100	10 / 1000	-40~125	125	70	10	63	100	180				
☆ KU10L06	50	100	10 / 1000	-40~125	125	55	10	50	100	180			M2F	74
☆ 4N12	100	40				110		100		50				
☆ 10R25N	190	100				220		190		90				
☆ 10R29N	250	100				275		250		90				
☆ 15N14	120	150				125		120		200				
☆ 4L08	63	40				70		63		90				
☆ KP10N12	100	100	10 / 1000	-40~125	125	110	10	100	100	140	2F	73		
☆ 14	120					130		120						
KP10R25	190	100	10 / 1000	-40~125	125	220	10	190	100	90				
☆ 29	220					275		260						
☆ KP15L07	58					150		10 / 1000					-40~125	125
☆ 08	63	70	63											
☆ KP15N12	100	150	10 / 1000	-40~125	125	110	10	100	100	200				
☆ 14	120					130		120						
KP15R25	190	150	10 / 1000	-40~125	125	220	10	190	100	150				

☆: New products

★: Under development

\*: Vd=0V