

Surge Absorbers

Varistors

[Features]

1. Bi-directional surge absorption is possible.
2. Low junction capacitance
3. SMD is available. (VR-61F1, VRYA6, 15)

[Applications]

1. Telephone set surge absorption
2. Digital communications circuit surge absorption
3. ISDN terminal surge absorption

Surface Mount



1F



1Y

Type No.	Absolute Maximum Ratings				Electrical Characteristics (Ta=25°C)						Outline	
	I _o [mA]	I _{FSM} [V]	T _{stg} [°C]	T _j [°C]	V _{F1} [V]	I _{F1} [mA]	V _{F2} [V]	I _{F2} [mA]	V _{F3} [V]	I _{F3} [mA]	Package	Fig.
VR-61F1 ^{*1}	370	7.5	-55 to 150	150	2.3±0.25	1	2.75±0.25	10	3.1±0.25	70	1F	13-1
VRYA6 ^{*2}	310	8	-30 to 125	125	2.3±0.25	1	2.75±0.25	10	3.1±0.25	70	1Y	16
VRYA15 ^{*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

Axial



AX06

Type No.	Absolute Maximum Ratings				Electrical Characteristics (Ta=25°C)						Outline		
	I _o [mA]	I _{FSM} [V]	T _{stg} [°C]	T _j [°C]	V _{F1} [V]	I _{F1} [mA]	V _{F2} [V]	I _{F2} [mA]	V _{F3} [V]	I _{F3} [mA]	Package	Color Code	Fig.
VR-60B(A)	500	16	-30 to 125	125	1.5	1000	-	-	0.2	0.02	AX06	Orange	3
VR-60BP(A)	500	16			1.8±0.25	1	0.58±0.03	1	10	2.4±0.25		70	
VR-51B(A)	150	7.5			2.3±0.25		2.1±0.25	2.75±0.25		3.1±0.25	AX06		*1
VR-61B(A)	150	7.5			2.3±0.25	2.1±0.25	2.75±0.25	3.1±0.25	AX06	*2			

*1: Silver-Silver

*2: Orange-Red

Trunkillers

[Features]

1. High speed response
2. Absorption energy tolerance capacity
3. Narrow clamping voltage width

[Applications]

1. IC protection for telephones
2. IC protection against abnormal voltage
3. Protection for load dump noise

Surface Mount



1F



2F



STO-220

Type No.	Absolute Maximum Ratings			Electrical Characteristics								Outline	
	P _{PRM} [W]	T _{stg} [°C]	T _j [°C]	V _{RM} (max) [V]	V _{BR} (std) [V]	Conditions I _R [mA]	I _R (max) [μA]	Conditions V _R [V]	r _Z (max) [%/°C]	V _{CL1} (max) [V]	Conditions I _{PP} [A]	Package	Fig.
☆ST02D-170F2	200	-40 to 150	150	145	170	1	5	145	-	280	0.75	2F	15-3
ST03-58F1	300	-55 to 150	150	45	58	1	5	45	-	-	-	1F	12-2
ST04-16F1	400	-55 to 175	175	13.6	16	1	5	13.6	-	23	15	1F	12-2
ST04-27F1				23	27	1	5	23	-	37	10		
ST150V-27F	5000	-40 to 150	150	23	27	1	5	23	0.09	40	130	STO-220	31-4
ST70-27F	7000	-40 to 150	150	23	27	1	5	23	0.09	40	180	STO-220	31-6
DL04-18F1 [◎]	400	-55 to 150	150	13	-	-	5	13	-	26	-	1F	13-2

☆: New product

◎: Bi-directional type