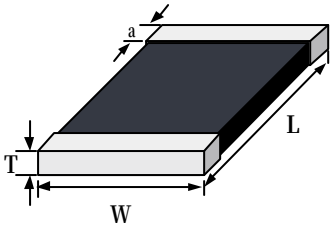
DB LECTRO
COMPOSANTS ÉLECTRONIQUES
ELECTRONIC COMPONENTS

Automotive Series

Multilayer Ceramic Automotive Transient Voltage Suppressor Standard Capacity

Dimensions



Features

Thin layer, high precise techniques
Leadless, Surface chip form
Variety of energy ratings available
No temperature derating up to 125°C ambient
High surge current capacity
Stable protection level,mini. Leakage current
Inherent bidirectional clamping
Available with Nickel/Tin end termination
No plastic or epoxy coating assures better than 94v-0 flammability rating

Applications

• Absorption of switching surge from various kinds of relay、trumpet、motors and electro-magnetic valves.

•Electrostatic discharge and spike noise suppression.

•Protect the electronic systems such as antilock brake systems、direct ignition systems、engine control、airbag control systems、wiper motor control and semiconductors of automobile.

Specifications

Packaging
Tape and Reel
T 7 inch reel (Note)

Material
Body: Ceramic (ZnO)
Terminals: Ni/Sn plated (code "P")
Ag/Pt/Pd non plated
(code "N" on request)

Operating Temperature
-55 to +125°C

Solderability
acc. to IEC 60068-2-58
235°C, 2s

Soldering Heat Resistance
260°C, 10 sec. (IEC 60068-2-58)
280°C, 5 sec. (IEC 60068-2-58)

Response Time
1-5ns

Temperature coefficient (αV) of clamping voltage (Vc) @ specified test current
<0.01%/°C

Power dissipation
1.0W max.

Standards
MIL-STD-750

Type	Maximum Ratings (125°C)				Specifications (25°C)				
	max. cont. working voltage	Jump start voltage max. (5minutes)	load dump energy (10 pulses)	max. clamping voltage at spec. current (8/20 μs)	nominal varistor voltage at 10mA (DC) test current		typ. capacitance		typ. inductance
	$V_{M(DC)}$ (V)	V_{JUMP} (V)	W_{LD} (J)	V_C (V@A)	$V_{N(DC)min.}$ (V)	$V_{N(DC)max.}$ (V)	1KHz $C_{typ.}$ (pF)	1MHz $C_{typ.}$ (pF)	$L_{typ.}$ (nH)
JA0805ML180A	18	24.5	1.0	40 @ 1.5	23.0	32.0	760	650	1.5
JA1206ML180A	18	24.5	1.5	40 @ 1.5	23.0	32.0	1070	900	1.8
JA1210ML180A	18	24.5	3.0	40 @ 1.5	23.0	32.0	3215	2700	1.8
JA1812ML180A	18	24.5	6.0	40 @ 5	23.0	32.0	5300	4500	2.5
JA2220ML180A	18	24.5	25.0	40 @ 10	23.0	32.0	1320	1100	3,0
JA2220ML380A	38	50.0	30.0	77 @ 10	48.5	56,0	4720	4000	3,0

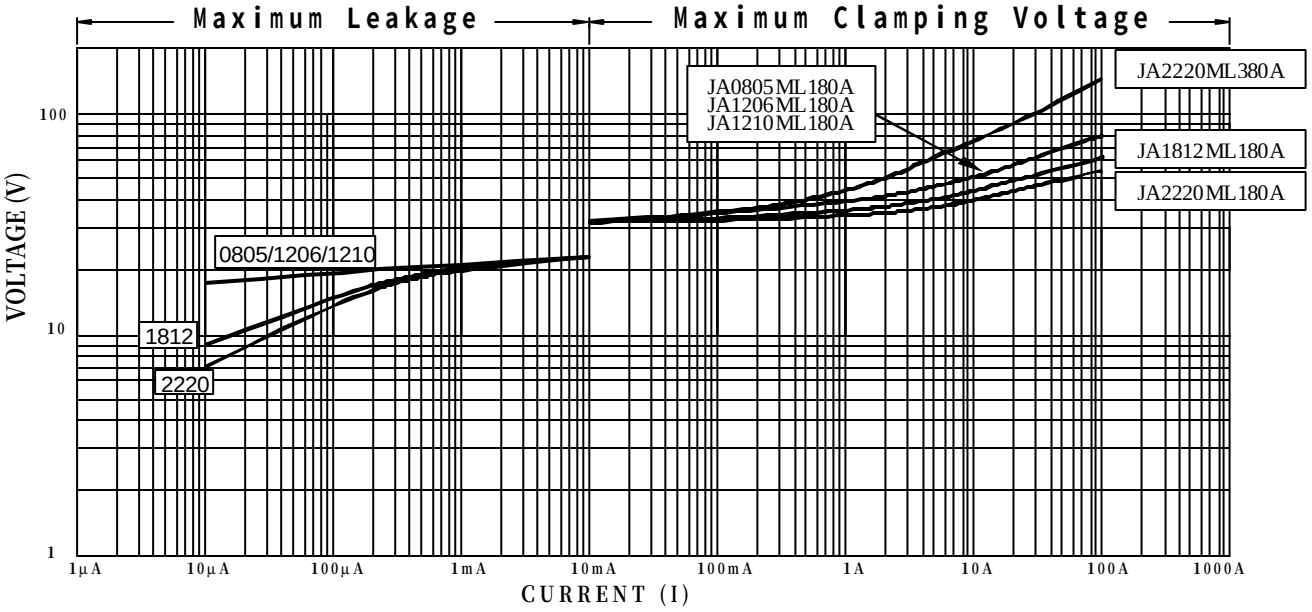
Order Information

Qty.	Order-Number	Type		Terminal Code	Packaging
		JA0805ML180	*A*	*P*	*T*

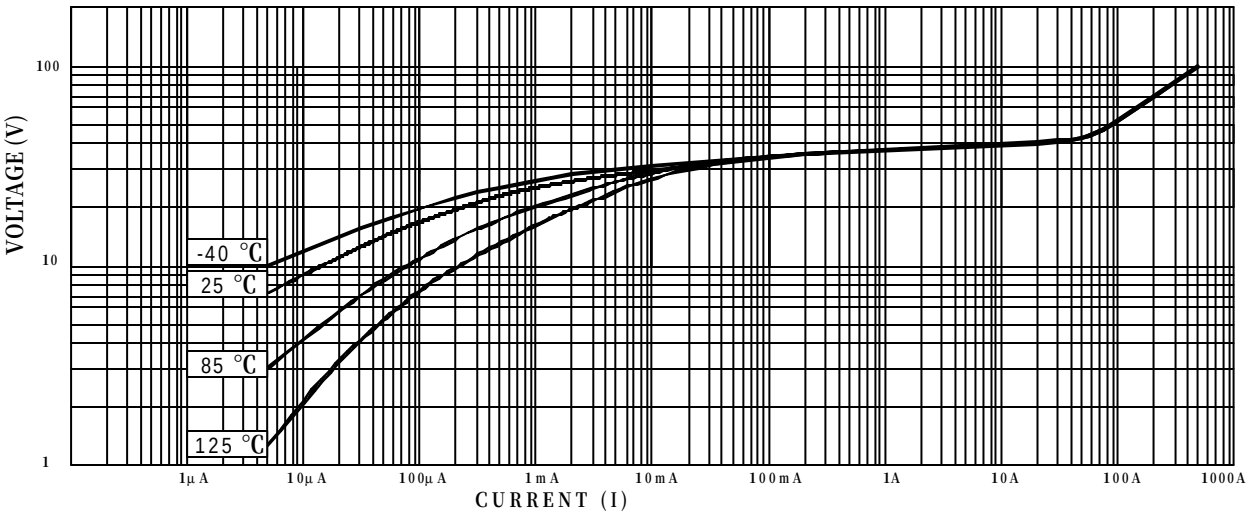
Specifications are subject to change without notice

Automotive Series

V/I Characteristics Curves



Maximum Leakage Current/Clamping Voltage Curve for Automotive Series at 25 ℃



Typical V-I Characteristics of The JA2220ML180A at -40 ℃, 25 ℃, 85 ℃ and 125 ℃