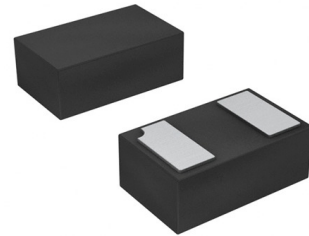


1-Line Transient Voltage Suppressors

◆ DESCRIPTIONS

The CMTLDF02C450ALE Series is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

◆ Circuit Diagram



DFN1006-2

◆ Pin Configuration



◆ FEATURES

- 1、 1-Line Transient Voltage Suppressors;
- 2、 Provides ESD protection to IEC61000-4-2 level 4:
 $\pm 30\text{kV}$ (air discharge);
 $\pm 30\text{KV}$ (contact discharge);
- 3、 Ultra-small body with DFN1006-2 package;
- 4、 Fast response speed $< 1\text{ ns}$;
- 5、 Low clamping voltage;
- 6、 Low operating voltage;
- 7、 RoHS compliant.

◆ APPLICATIONS

- 1、 Computer Interfaces Protection;
- 2、 Microprocessors Protection;
- 3、 Control Signal Lines Protection;
- 4、 Serial and Parallel Ports Protection;
- 5、 power lines on PCB Protection;
- 6、 Latchup Protection.

◆ ORDERING INFORMATION

Part No.	Package	Material	Packing
CMTLDF02C450ALE	DFN1006-2	Halogen free	Tape

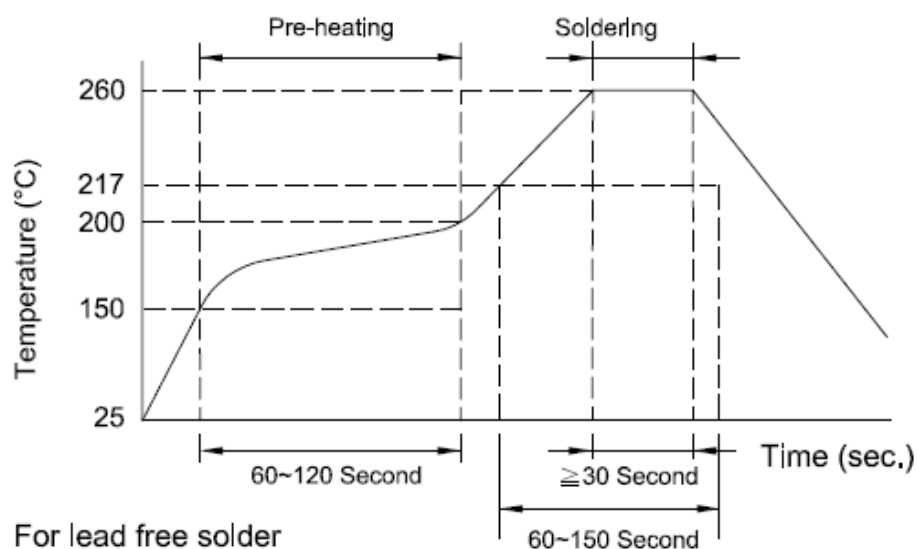
◆ **ABSOLUTE MAXIMUM RATINGS**

Characteristics	Symbol	Rating	Unit
Peak Pulse Power (tp=8/20μs waveform)	P _{PP}	105	Watts
Peak Pulse Current (8/20μs)	I _{PP}	8.5	A
ESD Per IEC61000-4-2 (air discharge)	V _{ESD1}	±30kV	kV
ESD Per IEC61000-4-2 (contact discharge)	V _{ESD2}	±30kV	kV
Lead Soldering Temperature	T _{SOL}	260(10sec.)	°C
Operating Temperature	T _{OP}	-55 ~ +125	°C
Storage Temperature	T _{STO}	-55 ~ +150	°C

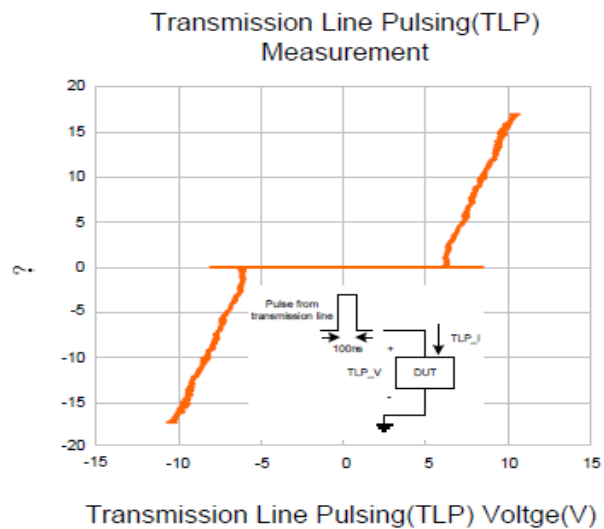
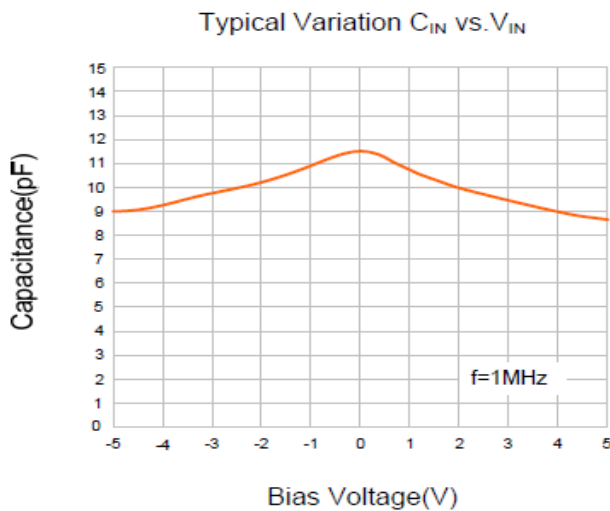
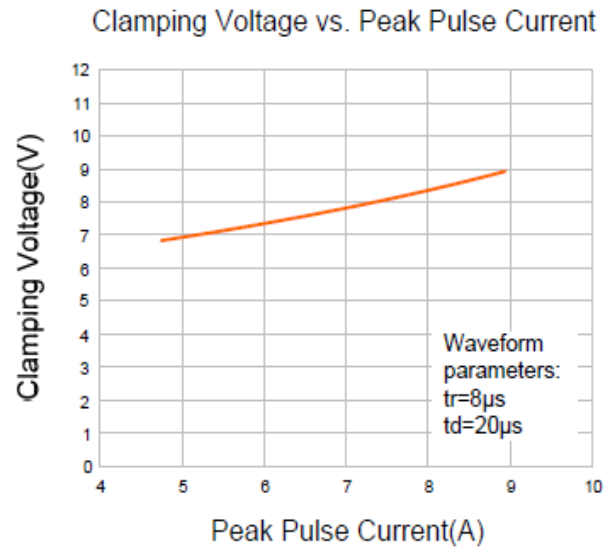
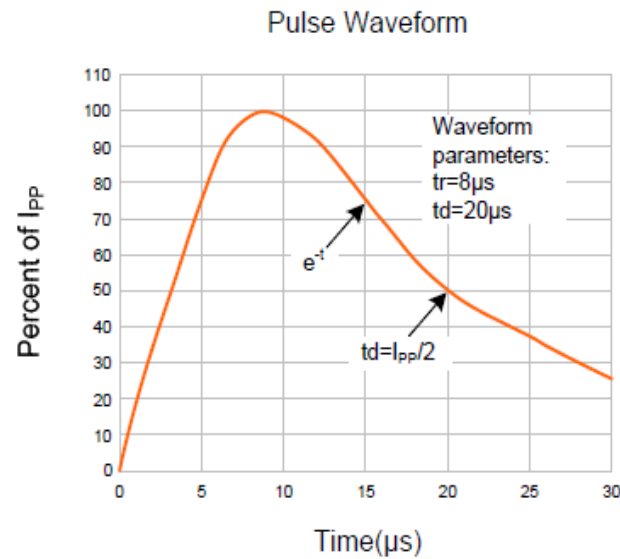
◆ **ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)**

Characteristics	Symbol	Test Condition	Min.	Typ.	Max.	Unit.
Reverse Stand-Off Voltage	V _{RWM}	T=25°C			5	V
Reverse Leakage Current	I _{Leak}	V _{RWM} =5V, T=25°C			2.5	μA
Reverse Breakdown Voltage	V _{BV}	I _{BV} =1mA, T=25°C	6.2		9	V
Channel Input Capacitance	C _{IN}	V _P =0V, f=1MHz, T=25°C		45	50	pF

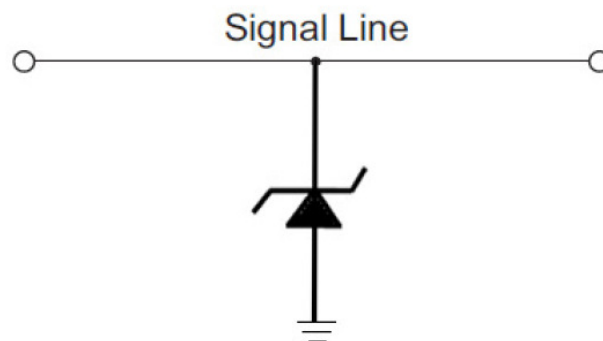
◆ **RECOMMENDABLE REFLOW SOLDERING**



◆ **TYPICAL ELECTRICAL CHARACTERISTICS CURVE**



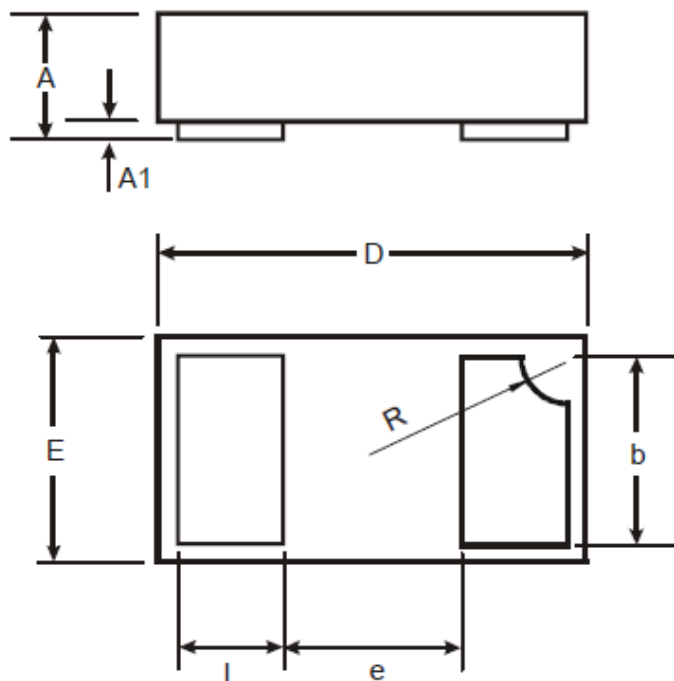
◆ **TYPICAL APPLICATIONS**



Unidirectional Protection of Single Line

◆ PACKAGE OUTLINE

DFN1006-2



DFN1006-2			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.03
b	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
e	-	-	0.40
L	0.20	0.30	0.25
R	0.05	0.15	0.10
All Dimensions in mm			