Ceramic transient voltage suppressors, CTVS

Symbols and terms

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Symbols and terms

For ceramic transient voltage suppressors (CTVS)

Symbol	Term
$C_{line,max}$	Maximum capacitance per line
$C_{line,min}$	Minimum capacitance per line
$C_{line,typ}$	Typical capacitance per line
C_{max}	Maximum capacitance
C_{min}	Minimum capacitance
C_{nom}	Nominal capacitance
ΔC_{nom}	Tolerance of nominal capacitance
C_{typ}	Typical capacitance
$f_{cut\text{-}off,max}$	Maximum cut-off frequency
$f_{cut\text{-}off,min}$	Minimum cut-off frequency
$f_{cut\text{-}off,typ}$	Typical cut-off frequency
$f_{res,typ}$	Typical resonance frequency
I	Current
I_{clamp}	Clamping current
I_{leak}	Leakage current
$I_{leak,max}$	Maximum leakage current
$I_{leak,typ}$	Typical leakage current
I_{PP}	Peak pulse current
$I_{surge,max}$	Maximum surge current (also termed peak current)
LCT	Lower category temperature
L_{typ}	Typical inductance
$P_{diss,max}$	Maximum power dissipation
P_{PP}	Peak pulse power
R_{ins}	Insulation resistance
R_{min}	Minimum resistance
R_S	Resistance per line
$R_{S,typ}$	Typical resistance per line
T_A	Ambient temperature
T_{op}	Operating temperature
$T_{op,max}$	Maximum operating temperature
T_{stg}	Storage temperature

Symbols and terms

Symbol	Term
t_r	Duration of equivalent rectangular wave
t_{resp}	Response time
$t_{resp,max}$	Maximum response time
UCT	Upper category temperature
V	Voltage
$V_{BR,min}$	Minimum breakdown voltage
$V_{clamp,max}$	Maximum clamping voltage
$V_{DC,max}$	Maximum DC operating voltage (also termed working voltage)
$V_{ESD,air}$	Air discharge ESD capability
$V_{ESD,contact}$	Contact discharge ESD capability
V_{jump}	Maximum jump-start voltage
$V_{RMS,max}$	Maximum AC operating voltage, root-mean-square value
V_V	Varistor voltage (also termed breakdown voltage)
V_{LD}	Maximum load dump voltage
V_{leak}	Measurement voltage for leakage current
$V_{V,min}$	Minimum varistor voltage
$V_{V,max}$	Maximum varistor voltage
ΔV_V	Tolerance of varistor voltage
W_{LD}	Maximum load dump energy
W_{max}	Maximum energy absorption (also termed transient energy)
α_{typ}	Typical insertion loss
tan δ	Dissipation factor
e	Lead spacing
≪*≫	Maximum possible application conditions

All dimensions are given in mm.
The commas used in numerical values denote decimal points.

Symbols and terms

For CeraDiodes

CeraDiode	Semiconductor diode	
C_{max}		Maximum capacitance
C_{typ}		Typical capacitance
I_{BR}	I_R, I_T	(Reverse) current @ breakdown voltage
I_{leak}	I_{RM}	(Reverse) leakage current
I_{PP}	I_P, I_{PP}	Current @ clamping voltage; peak pulse current
P_{PP}	P_{PP}	Peak pulse power
T_{op}		Operating temperature
T_{stg}		Storage temperature
V_{BR}	V_{BR}	(Reverse) breakdown voltage
$V_{BR,min}$		Minimum breakdown voltage
V_{clamp}	$V_{cl,}$ V_C	Clamping voltage
$V_{clamp,max}$		Maximum clamping voltage
V_{DC}	V_{RM}, V_{RWM}, V_{WM}, V_{DC}	(Reverse) stand-off voltage, working voltage, operating voltage
$V_{DC,max}$		Maximum DC operating voltage
$V_{ESD,air}$		Air discharge ESD capability
$V_{ESD,contact}$		Contact discharge ESD capability
V_{leak}	V_{RM}, V_{RWM}, V_{WM}, V_{DC}	(Reverse) voltage @ leakage current
- *)	I_F	Current @ forward voltage
- *)	I_{RM}, $I_{RM,max}$@V_{RM}	(Reverse) current @ maximum reverse stand-off voltage, working voltage, operating voltage
- *)	V_F	Forward voltage

*) Not applicable due to bidirectional characteristics of CeraDiodes.