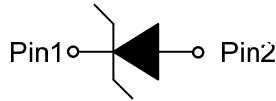


1-Line, Uni-directional, Transient Voltage Suppressor



DFN0603-2L

Features

- ✕ Stand-off voltage: 5V Max
- ✕ Transient protection for each line according to
 - IEC61000-4-2(ESD): 030kV (contact)
 - IEC61000-4-4 (EFT): 40A (5/50ns)
 - IEC61000-4-5(surge): 18A (8/20>s)
- ✕ Low leakage current
- ✕ Low clamping voltage
- ✕ Low clamping voltage:
 $V_{CL} = 8.5V$ typ. @ $I_{PP} = 16A$ (TLP)
- ✕ RoHS Compliant

Applications

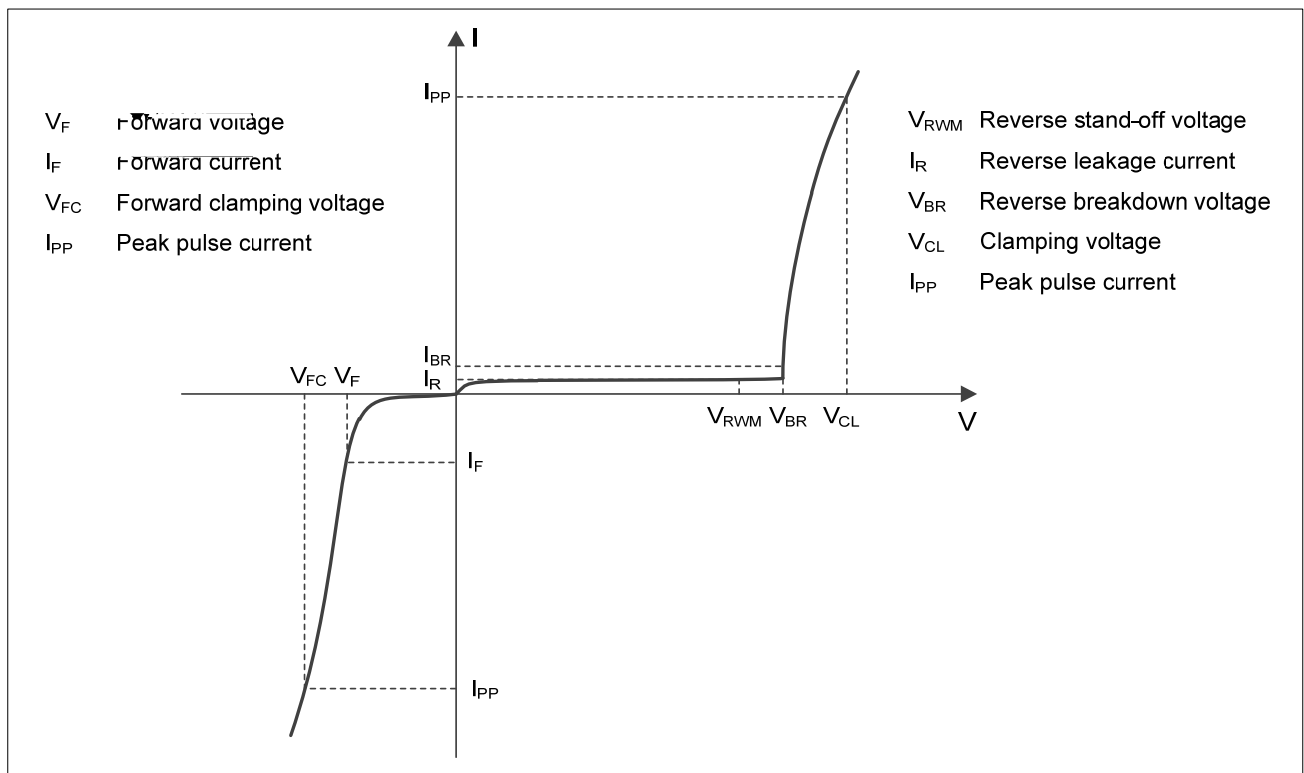
- ✕ Power supply protection
- ✕ Power management

Mechanical Data

- ✕ Package: DFN0603-2L
- ✕ Lead Finish: Matte Tin
- ✕ Case Material: 0Green0 Molding Compound
- ✕ Moisture Sensitivity: Level 3 per J-STD-020
- ✕ Marking Information: See Below



Definitions of electrical characteristics





ESD5V0LZA

Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power ($t_p = 8/20 \mu s$)	P_{pk}	200	W
Peak pulse current ($t_p = 8/20 \mu s$)	I_{PP}	18	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±30	kV
ESD according to IEC61000-4-2 contact discharge		±30	
Junction temperature	T_J	125	°C
Operating temperature	T_{OP}	-40~85	°C
Storage temperature	T_{STG}	-55~150	°C

Electrical Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V				5
Reverse leakage current	I_R	nA	$V_{RWM} = 5V$			100
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	6		
Forward voltage	V_F	V	$I_F = 20mA$	0.45		1.25
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 16A, t_p = 100ns$		8.5	
Dynamic resistance ¹⁾	R_{DYN}	=			0.1	
Clamping voltage ²⁾	V_{CL}	V	$V_{ESD} = 8kV$		8.5	
Clamping voltage ³⁾	V_{CL}	V	$I_{PP} = 1A, t_p = 8/20 \mu s$		6.4	7.5
		V	$I_{PP} = 10A, t_p = 8/20 \mu s$		7.5	9
		V	$I_{PP} = 18A, t_p = 8/20 \mu s$		9	11
Junction capacitance	C_J	pF	$V_R = 0V, f = 1MHz$		40	49

Notes:

- (1). TLP parameter: $Z_0 = 50 \Omega$, $t_p = 100ns$, $t_r = 2ns$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.
- (2). Contact discharge mode, according to IEC61000-4-2.
- (3). Non-repetitive current pulse, according to IEC61000-4-5.

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ESD5V0LZA	F1	Approximate 0.18	10000	40000	400000	7" reel

(6 ' 9 / = \$

v & K D U D F W H U L S M F L D F O /



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