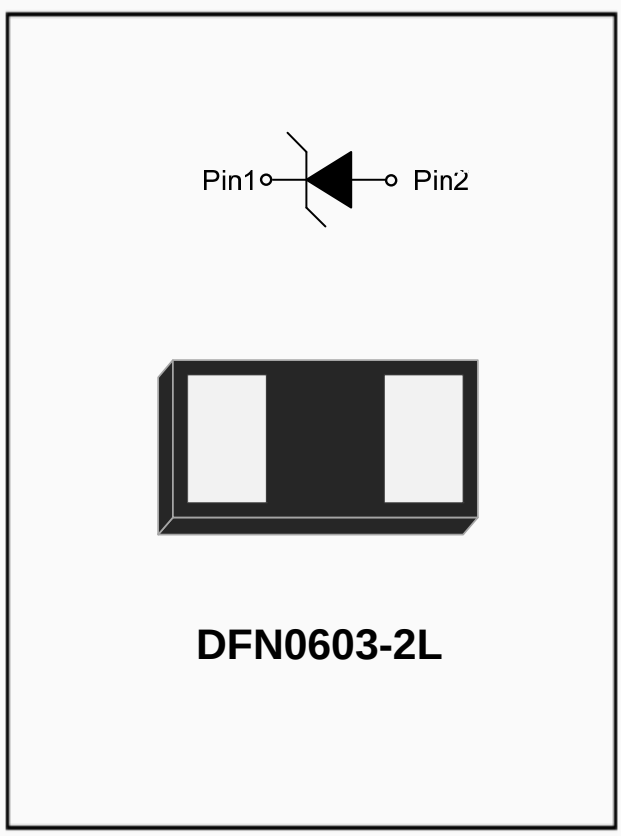
1-Line, Uni-directional, Transient Voltage Suppressor



Features

- ð Stand-off voltage: 5V Max
- ð Transient protection for each line according to
  - IEC61000-4-2(ESD): Ñ30kV (contact)
  - IEC61000-4-4 (EFT): 40A (5/50ns)
  - IEC61000-4-5(surge): 18A (8/20εs)
- ð Low leakage current
- ð Low clamping voltage
- ðLow clamping voltage:

V_{CL} = 8.5V typ. @ IPP = 16A (TLP)

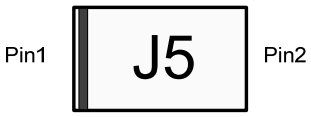
- ð RoHS Compliant

Applications

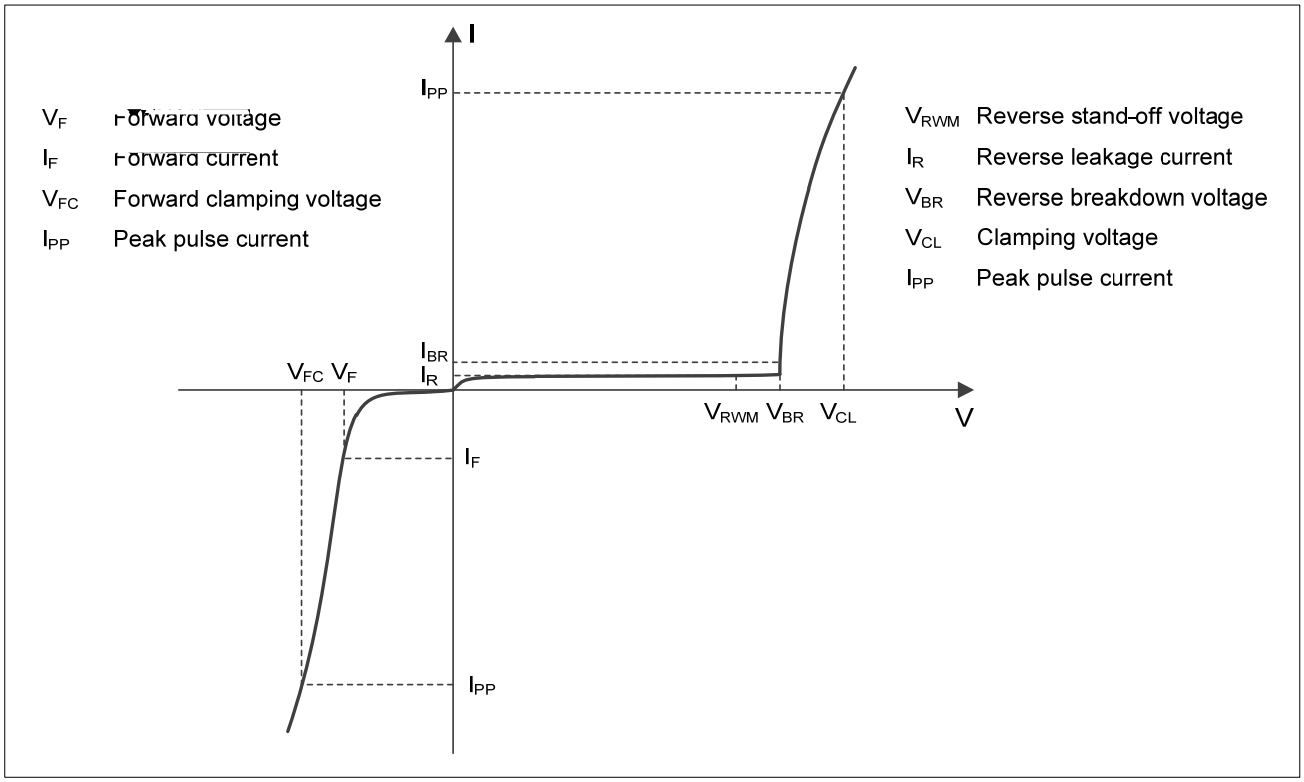
- ð Power supply protection
- ð Power management

Mechanical Data

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



yDefinitions of electrical characteristics



yMaximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power (t_p = 8/20εs)	P_{pk}	200	W
Peak pulse current (t_p = 8/20εs)	I_{PP}	18	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	Ñ30	kV
ESD according to IEC61000-4-2 contact discharge		Ñ30	
Junction temperature	T_J	125	ºC
Operating temperature	T_{OP}	-40~85	ºC
Storage temperature	T_{STG}	-55~150	ºC

yElectrical Characteristics Ta=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}	q			0.1	
Clamping voltage 2)	V_{CL}	V	V_{ESD} = 8kV		8.5	
Clamping voltage 3)	V_{CL}	V	I_{PP} = 1A, t_p = 8/20εs		6.4	7.5
		V	I_{PP} = 10A, t_p = 8/20εs		7.5	9
		V	I_{PP} = 18A, t_p = 8/20εs		9	11
Junction capacitance	C_J	pF	V_R = 0V, f = 1MHz		40	49

Notes:
(1). TLP parameter: Z_0 = 50q, 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.

yOrdering Information (Example)

PREFERED 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	7ò reel

v & K D U D F W H U 7 L S Y L W F L D F O V

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