

### FEATURES

- DUAL TRANSIL™ PROVIDING BREAKDOWN VOLTAGES:  
T1 :  $V_{BR} = 6.8V$   
T :  $V_{BR} = 13.6V$
- SUPPRESSES SPIKES FROM 5V AND 12V SMPS
- ESD PROTECTION UP TO 25kV
- LOW LEAKAGE CURRENT

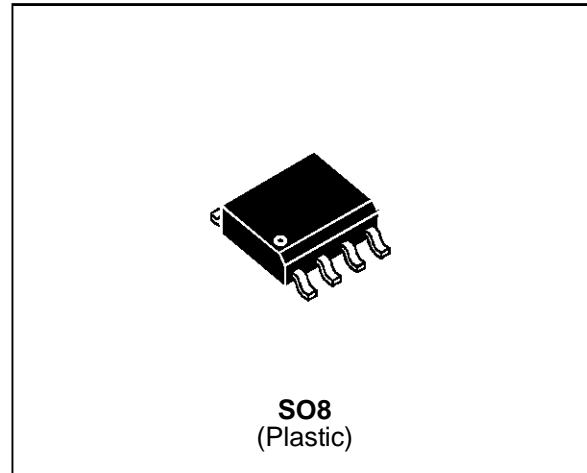
### DESCRIPTION

Dual Transil for computer board protection. The transils suppress spikes from both the 5V and 12V power supplies, protecting both EPROMs and TTL compatible circuits.

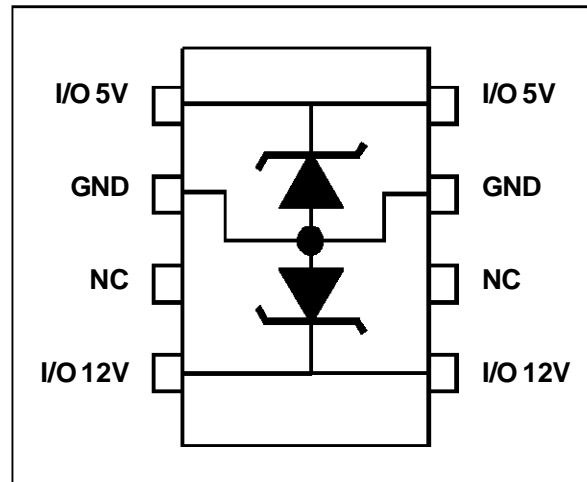
ESD protection up to 25kV is also guaranteed: useful during a power-down or power supply disconnection.

### COMPLIES WITH THE FOLLOWING STANDARDS :

- IEC801-2    15kV                    (air discharge)
- IEC801-4    40A    5/50 ns (repetitive 2.5kHz)
- IEC801-5    0.5kV   1.2/50 $\mu$ s  
                  12A    8/20 $\mu$ s
- MIL STD 883C - METHOD 3015-6  
   $V_p = 25kV$      $C = 100pF$      $R = 1500\Omega$   
  3 positive and 3 negative strikes ( $F = 1Hz$ )
- HUMAN BODY TEST :  
   $V_p = 4kV$      $C = 150pF$      $R = 150\Omega$



### FUNCTIONAL DIAGRAM



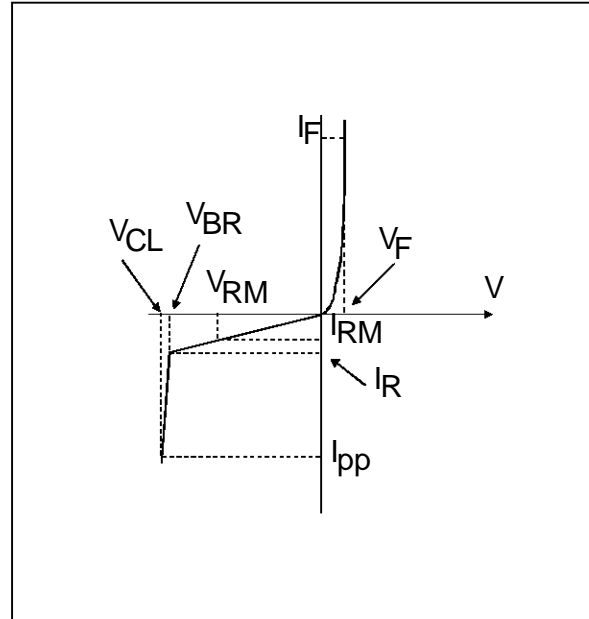
### ABSOLUTE MAXIMUM RATINGS (0°C ≤ T<sub>amb</sub> ≤ 70°C)

Symbol	Parameter	Value	Unit
$I_{pp}$	Peak pulse current for 8/20 $\mu$ s pulse	12	A
$T_{stg}$	Storage Temperature Range	- 55 to + 150	°C
$T_j$	Maximum Junction Temperature	125	°C

# DDP6V8

## ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C)

Symbol	Parameter
V <sub>RM</sub>	Stand-off voltage.
V <sub>BR</sub>	Breakdown voltage.
V <sub>CL</sub>	Clamping voltage.
C1, C2	Capacitance.
I <sub>RM</sub>	Leakage current.
I <sub>PP</sub>	Peak pulse current.



## ELECTRICAL CHARACTERISTICS

Type	I <sub>RM</sub> @ V <sub>RM</sub> max.		V <sub>BR</sub> @ I <sub>R</sub> min.		V <sub>CL</sub> @ I <sub>PP</sub> max. 8/20 μs note 1		C1 typ. note 2	C2 typ. note 3	αT max. note 4
	μA	V	V	mA	V	A	pF	pF	10 <sup>-4</sup> /°C
6V8 Transil	50	5	6.8	1	10	3	300	140	5
13.6V Transil	50	12	13.6	1	20	3	110	60	5

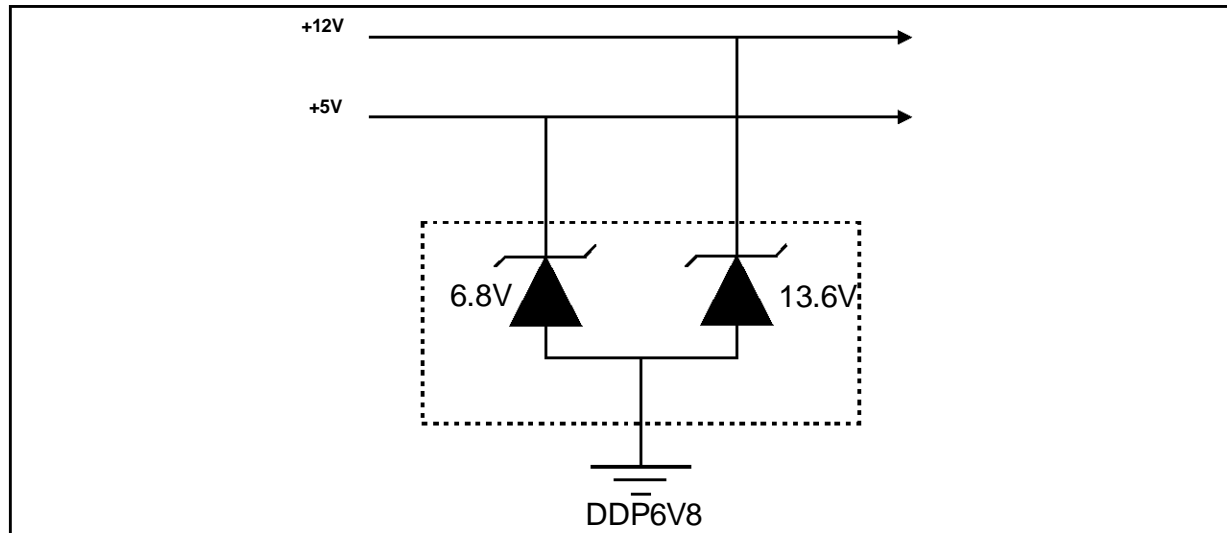
Note 1 : Between I/O pin and GND.

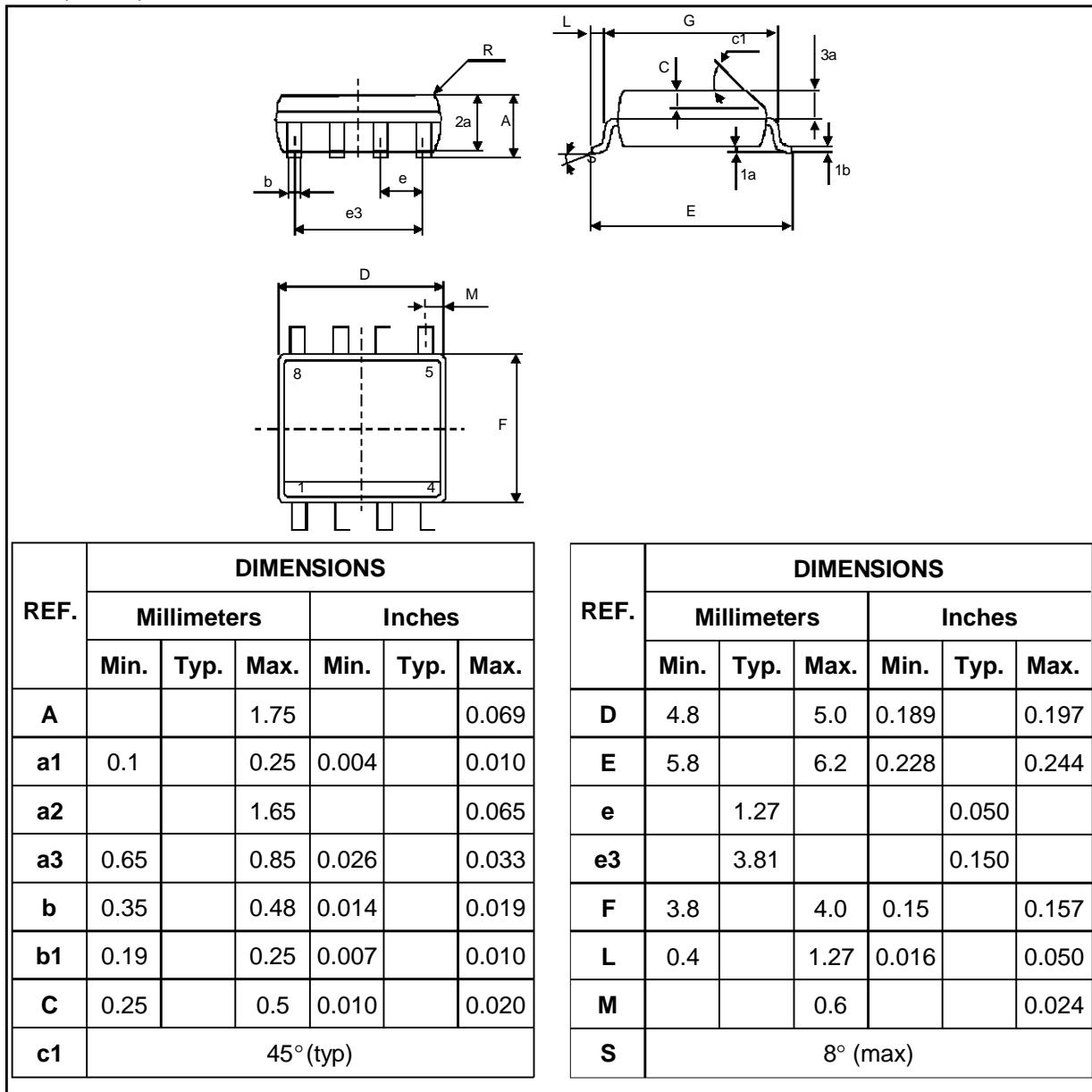
Note 2 : Between I/O pin and GND at 0V bias.

Note 3 : Between I/O pin and GND at V<sub>RM</sub>.

Note 4 : ΔV<sub>BR</sub> = αT x (T<sub>amb</sub> - 25) x V<sub>BR</sub>(25°C)

## TYPICAL APPLICATION CIRCUIT



**PACKAGE MECHANICAL DATA**  
 SO8 (Plastic)


Marking : Logo, Date Code, DDP6V8

Weight : 0.08 g

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