

## ESD Protection Diodes

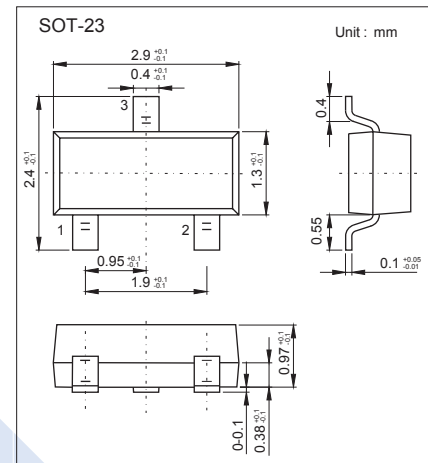
## PSOT03 ~ PSOT36C

## ■ Features

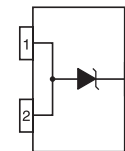
- ESD Protection > 40 kilovolts
- 500 Watts Peak Pulse Power per Line ( $t_p = 8/20\mu s$ )
- Low Clamping Voltage
- Available in Multiple Voltage Types Ranging from 3V to 36V
- Unidirectional & Bidirectional Configurations

## ■ IEC Compatibility (EN61000-4)

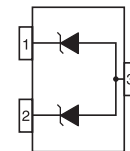
- 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- 61000-4-4 (EFT): 40A - 5/50ns
- 61000-4-5 (Surge): 24A, 8/20 $\mu s$   
- Level 2(Line-Ground) & Level 3(Line-Line)



Unidirectional



Bidirectional



## ■ Absolute Maximum Ratings @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1	PPP	500	W
Forward Voltage @ 100mA, 300 $\mu s$ - Square Wave (Note 1)	$V_F$	1.5	V
Operating Temperature	$T_J$	-55 to +150	°C
Storage Temperature	$T_{STG}$	-55 to +150	

Note 1: Applies to unidirectional pins only.

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■ Electrical Characteristics Per Line @ 25°C Unless Otherwise Specified

Part Numbers (Note 1)	Marking	Rated Stand-off Voltage	Minimum Breakdown Voltage	Maximum Clamping Voltage (See Fig. 2)	Maximum Clamping Voltage (See Fig. 2)	Maximum Leakage Current	Typical Capacitance
		V <sub>WM</sub> (V)	V <sub>BR</sub> (V) @ 1mA	V <sub>C</sub> (V) @ I <sub>P</sub> = 1A	V <sub>C</sub> (V) @ I <sub>PP</sub> 8/20μs	I <sub>D</sub> (μA) @ V <sub>WM</sub>	C(pF) @ 0V, 1MHz
PSOT03	3	3.3	4	6.5	10.9V @ 43.0A	125	500
PSOT03C	03C	3.3	4	7	10.9V @ 43.0A	125	300
PSOT05	5	5	6	9.8	13.5V @ 42.0A	20	350
PSOT05C	05C	5	6	9.8	13.5V @ 42.0A	20	210
PSOT08	8	8	8.5	13.4	16.9V @ 34.0A	10	250
PSOT08C	08C	8	8.5	13.4	16.9V @ 34.0A	10	150
PSOT12	12	12	13.3	19	25.9V @ 21.0A	2	150
PSOT12C	12C	12	13.3	19	25.9V @ 21.0A	2	90
PSOT15	15	15	16.7	24	30.0V @ 17.0A	1	100
PSOT15C	15C	15	16.7	24	30.0V @ 17.0A	1	80
PSOT24	24	24	26.7	43	49.0V @ 12.0A	1	88
PSOT24C	24C	24	26.7	43	49.0V @ 12.0A	1	63
PSOT36	36	36	40	51	76.8V @ 9.0A	1	80
PSOT36C	36C	36	40	51	76.8V @ 9.0A	1	60

Note 1: Part numbers with an additional "C" suffix are bidirectional devices, i.e., PSOT05C.

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■ Typical Characteristic Curves

