

1N5817 – 1N5819

LOW DROP POWER SCHOTTKY RECTIFIER

MAIN PRODUCTS CHARACTERISTICS

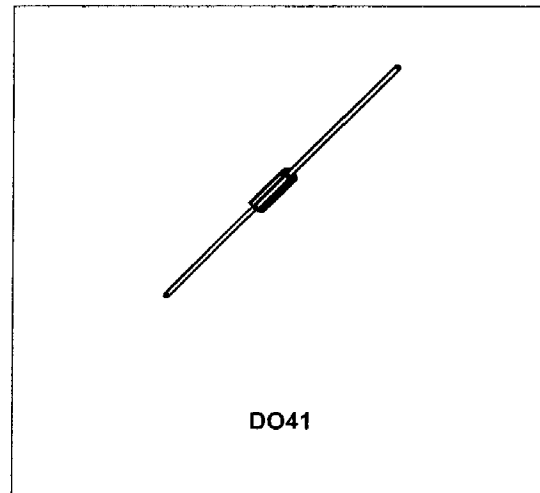
$I_{F(AV)}$	1 A
V_{RRM}	40 V
T_j	150°C
$V_F(max)$	0.45 V

FEATURES AND BENEFITS

- VERY SMALL CONDUCTION LOSSES
- NEGLIGIBLE SWITCHING LOSSES
- EXTREMELY FAST SWITCHING
- LOW FORWARD VOLTAGE DROP
- AVALANCHE CAPABILITY SPECIFIED

DESCRIPTION

Axial Power Schottky rectifier suited for Switch Mode Power Supplies and high frequency DC to DC converters. Packaged in DO41 these devices are intended for use in low voltage, high frequency inverters, free wheeling, polarity protection and small battery chargers.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value			Unit
		1N5817	1N5818	1N5819	
V_{RRM}	Repetitive peak reverse voltage	20	30	40	V
$I_{F(RMS)}$	RMS forward current	10			A
$I_{F(AV)}$	Average forward current $T_L = 125^\circ\text{C}$ $\delta = 0.5$	1			A
I_{FSM}	Surge non repetitive forward current tp = 10 ms Sinusoidal	25			A
P_{ARM}	Repetitive peak avalanche power tp = 1µs $T_j = 25^\circ\text{C}$	1200	1200	900	W
T_{stg}	Storage temperature range	- 65 to + 150			°C
T_j	Maximum operating junction temperature *	150			°C
dV/dt	Critical rate of rise of reverse voltage	10000			V/µs

* $\frac{dP_{tot}}{dT_j} < \frac{1}{R_{th}(j-a)}$ thermal runaway condition for a diode on its own heatsink

