



## Double Shielded Trench MOS Rectifiers™

Introducing the first generation family of high current density, Double Shielded Trench MOS Rectifiers™ the DSTMOS™ product portfolio. The first product in the DSTMOS™ family has a maximum repetitive peak reverse voltage ( $V_{RRM}$ ) of 45V, with an ultra-low forward drop voltage ( $V_F$ ) of 0.36V @  $I_F = 1.5$  A. This family includes rectifiers with  $V_{RRM}$  capability from 20V to 200 V.

### DSTMOS™ Key Features:

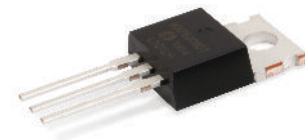
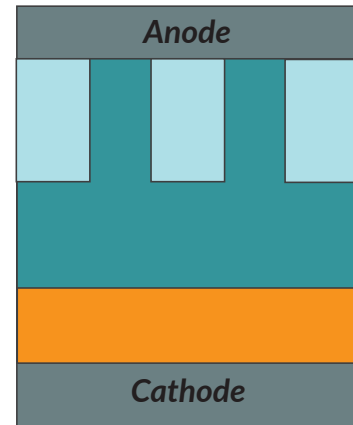
- Ultra-low  $V_F$
- 20V to 200V rated  $V_{RRM}$
- $\sim 10^1$  lower leakage current at rated reverse-bias voltage and high temperature

### Applications:

- DC/DC converters
- Adapters
- Polarity Protection

### Available Packages:

- TO-277A (SMPC)
- TO-220AB

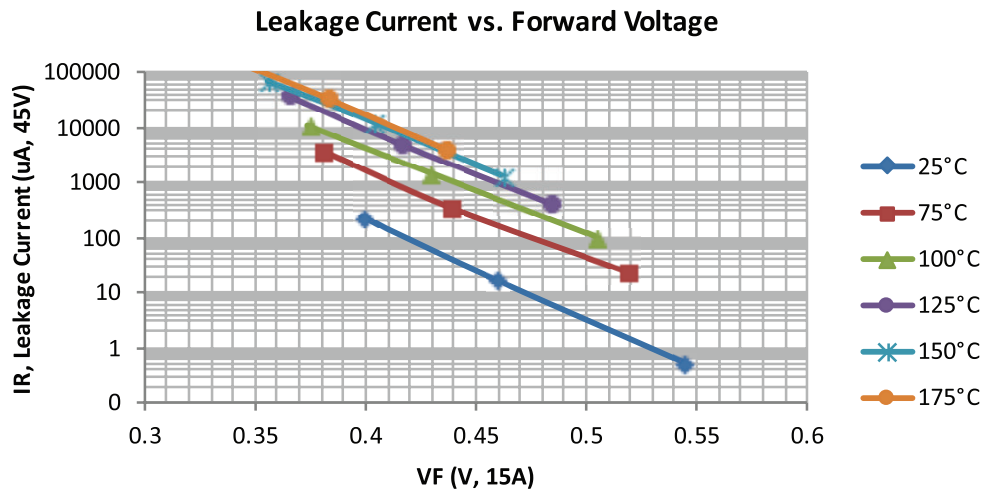


Part Number	Package	Configuration	Repetitive Peak Reverse Voltage $V_{RRM}$ (V) max	Average Rectified Current $I_F$ (A) max	$V_F$ @ $I_F$ (V)	Reverse Current (mA) (@40V) max	Junction Temp (°C) max
MXP40R10ATS	TO-220	Single	40	10	0.47	0.0499	175
MXP40R15ATS	TO-220	Single	40	15	0.505	0.0499	175
MXP40R20ATS	TO-220	Single	40	20	0.536	0.0499	175
MXP40R25ATS	TO-220	Single	40	25	0.47	0.132	175
MXP40R40ATS	TO-220	Single	40	40	0.505	0.132	175
MXP40R50ATS	TO-220	Single	40	50	0.536	0.132	175

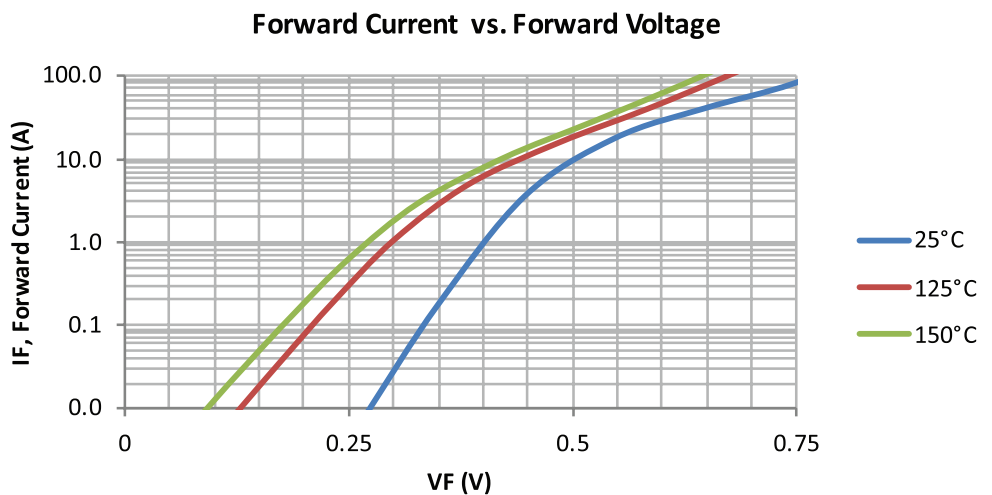


## Double Shielded Trench MOS Rectifiers™

Forward voltage drop ( $V_f$ ) vs Leakage Current ( $I_R$ ) over a wide temperature range of 25°C to 175°C.



Forward voltage drop ( $V_f$ ) vs Forward Current ( $I_f$ ) over a wide temperature range of 25°C to 175°C.



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