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## 1N645 General Purpose Silicon Rectifier

**Description:**

The 1N645 is a general purpose silicon rectifier in a DO-35 case designed for use in power applications, or for clipping and steering applications.

**Maximum Ratings and Electrical Characteristics:**

Power Dissipation (3/8" from body $T_L = +75^\circ\text{C}$ ), $P_{tot}$ .....	600mW
Average Rectified Forward Current ( $T_L = +75^\circ\text{C}$ ), $I_{AV}$ .....	400mA
Reverse Voltage, $V_R$ .....	225V
Min. Breakdown Voltage (at 100 $\mu\text{A}$ ), $B_V$ .....	275V
Maximum Average Rectified Current, $I_O$	
$T_A = +25^\circ\text{C}$ .....	400mA
$T_A = +150^\circ\text{C}$ .....	150mA
Maximum Forward Voltage Drop ( $I_F = 400\text{mA}$ ), $V_F$ .....	1V
Maximum Reverse Leakage Current ( $V_R = 225\text{V}$ ), $I_R$	
$T_A = +25^\circ\text{C}$ .....	0.2 $\mu\text{A}$
$T_A = +100^\circ\text{C}$ .....	15 $\mu\text{A}$
Maximum Surge Current (Note 1), $I_{FSM}$ .....	3A
Typical Junction capacitance (at -12V), $C_O$ .....	9pF
Operating Junction Temperature Range, $T_J$ .....	-65° to +175°C
Storage Temperature Range, $T_{stg}$ .....	-65° to +175°C
Maximum Thermal Impedance, $Z_{qjX}$ .....	35°C/W

Note 1. Surge Current @  $T_A = +25^\circ$  to  $+150^\circ\text{C}$ , for 1 second.

