



NES

NEW ENGLAND SEMICONDUCTOR

NPD1505 NPD1530
NPD1510 NPD1540
NPD1515 NPD1550
NPD1520 NPD1560

POWER RECTIFIERS

2 LEAD
HERMATIC



ULTRAFAST
RECTIFIERS

15 Amperes
50 - 600 Volts

MAXIMUM RATINGS

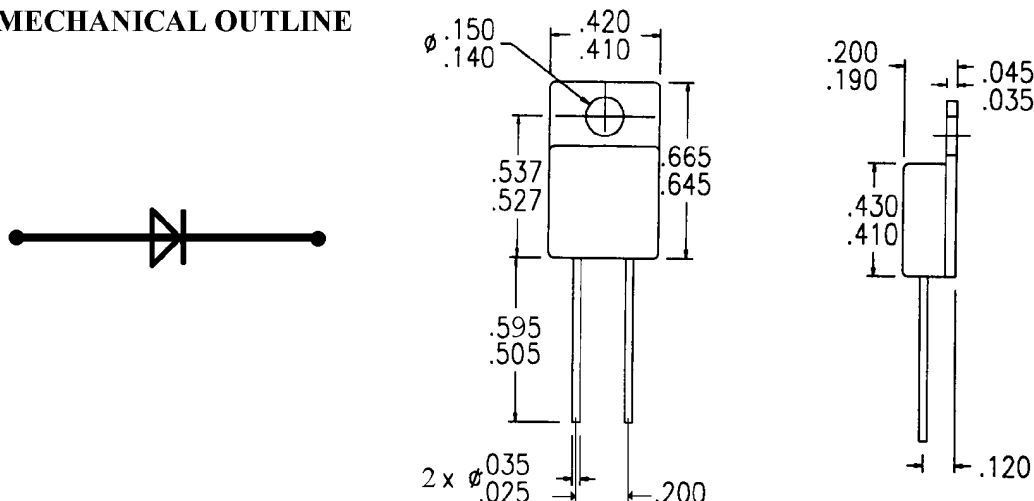
Rating	Symbol	1505	1510	1515	1520	1530	1540	1550	1560	Unit
Peak Repetitive Reverse Voltage	V_{RRM}									V
Working Peak Reverse Voltage	V_{RWM}	50	100	150	200	300	400	500	600	
DC Blocking Voltage	V_R									
Average Rectified Forward Current (Rated V_R) @ $T_C = 100^{\circ}\text{C}$	$I_F(\text{AV})$	15								A
Peak Repetitive Forward Current Rated V_R , Square Wave, 20 kHz	I_{FRM}	25 (@ $T_C = 100^{\circ}\text{C}$)								A
Non-repetitive Peak Surge Current Surge applied at rated load conditions halfwave, single phase, 60 Hz	I_{FSM}	150				125				A
Operating Junction & Storage Temp.	T_J, T_{sto}	-65 to +175								$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Max. Instantaneous Forward Voltage(1) $I_F = 15$ Amps, $T_C = 150^\circ\text{C}$ $I_F = 15$ Amps, $T_C = 25^\circ\text{C}$	V_F	0.9 1.1	1.15 1.3	1.4 1.6	V
Max. Instantaneous Reverse Current(1) Rated dc Voltage, $T_C = 100^\circ\text{C}$ Rated dc Voltage, $T_C = 25^\circ\text{C}$	I_R	500 10	1000 10		μA
Max. Reverse Recovery Time $I_F = 1.0$ A, $dI/dt = 50$ A/ μs	t_{rr}	35	60		ns

(1) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$.

MECHANICAL OUTLINE



NEW ENGLAND SEMICONDUCTOR

6 Lake Street Lawrence, MA 01841
1-800-446-1158 / (978) 794-1666 / FAX: (978) 689-0803

T4-4.8-860-1203 REV: --