



ELECTRONICS, INC.

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<http://www.nteinc.com>

## NTE5812HC thru NTE5817HC 10 Amp Plastic Silicon Rectifier

### Features:

- Diffused Junction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 600A Peak
- Low Reverse Leakage Current

### Maximum Ratings and Electrical Characteristics: ( $T_A = +25^\circ\text{C}$ unless otherwise specified)

#### Maximum Recurrent Peak Reverse Voltage

NTE5812HC	100V
NTE5814HC	400V
NTE5815HC	600V
NTE5817HC	1000V

#### Maximum RMS Voltage

NTE5812HC	70V
NTE5814HC	280V
NTE5815HC	420V
NTE5817HC	700V

#### Maximum DC Blocking Voltage

NTE5812HC	100V
NTE5814HC	400V
NTE5815HC	600V
NTE5817HC	1000V

Average Forward Current ( $T_A = +50^\circ\text{C}$ ),  $I_{F(AV)}$  . . . . . 10A

Peak Forward Surge Current (8.3ms, Half Sine),  $I_{FSM}$  . . . . . 400A

Maximum Instantaneous Forward Voltage ( $I_{FM} = 10\text{A}$ ,  $T_A = +25^\circ\text{C}$ ),  $V_F$  . . . . . 1.0V

#### Maximum DC Reverse Current at Rated DC Blocking Voltage, $I_R$

$T_A = +25^\circ\text{C}$	10 $\mu\text{A}$
$T_A = +100^\circ\text{C}$	100 $\mu\text{A}$

Typical Junction Capacitance (Measured at 1.0MHz,  $V_R = 4\text{V}$ ),  $C_J$  . . . . . 150pF

Operating Junction Temperature Range,  $T_J$  . . . . .  $-55^\circ$  to  $+125^\circ\text{C}$

Storage Temperature Range,  $T_{stg}$  . . . . .  $-55^\circ$  to  $+150^\circ\text{C}$

Typical Thermal Resistance, Junction-to-Ambient,  $R_{thJA}$  . . . . . 10K/W

Note 1. Pulse Test: Pulse Width = 300 $\mu\text{s}$ , Duty Cycle = 1%.

