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NTE640, NTE641, NTE642 2A Schottky Barrier Rectifier Fast Switching, Surface Mount DO214AA Type Package

Features:

- Low Forward Voltage
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 50A Peak
- Low Power Loss
- Fast Switching

Applications:

- High Frequency SMPS
- Inverters
- Free Wheeling Diodes

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

Peak Repetitive Reverse Voltage, V_{RRM}	
NTE640	40V
NTE641	60V
NTE642	100V
Working Peak Reverse Voltage, V_{RWM}	
NTE640	40V
NTE641	60V
NTE642	100V
DC Blocking Voltage, V_R	
NTE640	40V
NTE641	60V
NTE642	100V
RMS Reverse Voltage, $V_{R(RMS)}$	
NTE640	28V
NTE641	42V
NTE642	70V
Average Rectified Output Current (Note 1), I_O	2A
Non-Repertitive Peak Forward Surge Current, I_{FSM} (8.3ms Single Half Sine-Wave Superimposed on Rated Load)	50A

Note 1. Mounted on FR-4 PCB with 8.0 x 8.0mm copper pads.

Maximum Ratings (Cont'd): ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Forward Voltage ($I_F = 2\text{A}$), V_{FM}

NTE640	0.50V
NTE641	0.70V
NTE642	0.85V

Peak Reverse Current at Rated DC Blocking Voltage, I_{RM}

$T_J = +25^\circ\text{C}$	0.5mA
$T_J = +100^\circ\text{C}$	10mA

Typical Junction Capacitance (Note 2), C_J

NTE640, NTE641	150pF
NTE642	100pF

Operating Junction Temperature Range, T_J

NTE640	-55° to $+125^\circ\text{C}$
NTE641, NTE642	-55° to $+150^\circ\text{C}$

Storage Temperature Range, T_{stg}

-55° to $+150^\circ\text{C}$

Thermal Resistance, Junction-to-Ambient (Note 1), R_{thJA}

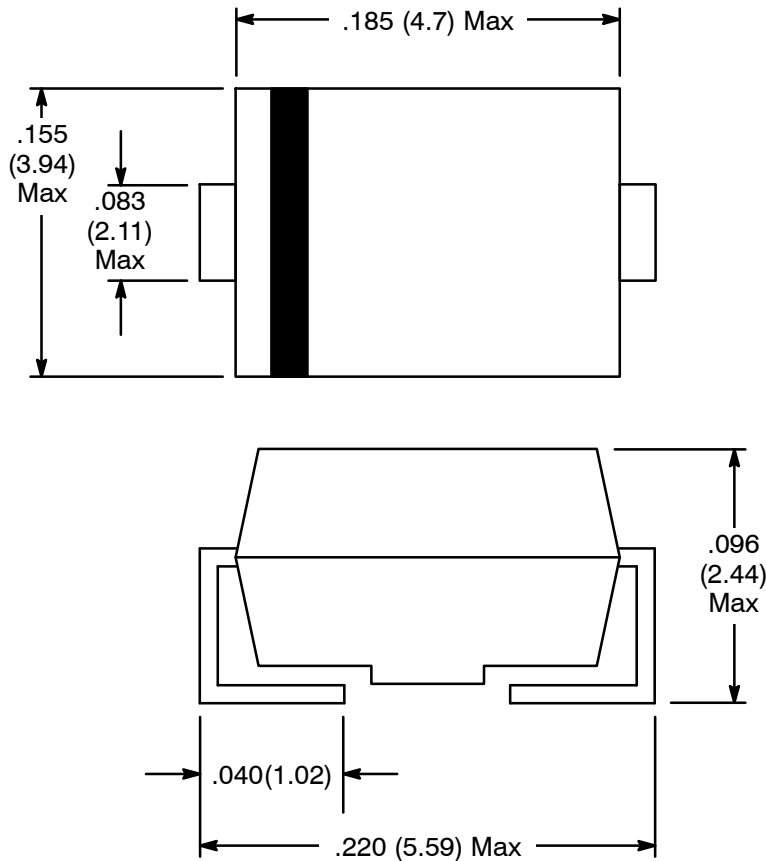
80°C/W

Thermal Resistance, Junction-to-Lead (Note 1), R_{thJL}

24°C/W

Note 1. Mounted on FR-4 PCB with 8.0 x 8.0mm copper pads.

Note 2. Measured at 1Mhz and applied reverse voltage of 4V DC.



Color Band Denotes Cathode