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NTE5712 Powerblock Module

Features:

- Isolated Mounting Base
- Pressure Contact Technology with Increased Power Cycling Capability
- Space and Weight Savings

Applications:

- AC/DC Motor Drives
- DC Supply for PWM Inverter

Electrical Specifications:

Mean On-State Current, $I_{T(AV)}$ (180° Half Sine Wave, 50Hz, Single Side Cooled, $T_C = +85^\circ\text{C}$, $T_J = +125^\circ\text{C}$)	55A
RMS On-State Current ($T_J = +125^\circ\text{C}$), $I_{T(RMS)}$	86A
Repetitive Peak Off-State Voltage ($t_p = 10\text{ms}$, $V_{DSM} = 1400\text{V}$, $T_J = +125^\circ\text{C}$), V_{DRM}	1200V
Repetitive Peak Reverse Voltage ($t_p = 10\text{ms}$, $V_{RSM} = 1400\text{V}$, $T_J = +125^\circ\text{C}$), V_{DRM}	1200V
Repetitive Peak Current ($V_{DRM}/V_{RRM} = 1200\text{V}$, $T_J = +125^\circ\text{C}$), I_{DRM} , I_{RRM}	8mA
Surge On-State Current ($V_R = 720\text{V}$, 10ms Half Sin Wave, $T_J = +125^\circ\text{C}$), I_{TSM}	1.5KA
I^2t for Fusing Coordination ($V_R = 720\text{V}$, 10ms Half Sin Wave, $T_J = +125^\circ\text{C}$), I^2t	$9.35\text{A}^2\text{s} \cdot 10^3$
Threshold Voltage ($T_J = +125^\circ\text{C}$), V_{TO}	0.85V
On-State Slope Resistance ($T_J = +125^\circ\text{C}$), r_T	3.47m Ω
Peak On-State Voltage ($I_{TM} = 170\text{A}$, $T_J = +25^\circ\text{C}$), V_{TM}	1.5V
Critical Rate of Rise of Off-State Voltage ($V_{DM} = 804\text{V}$, $T_J = +125^\circ\text{C}$), dv/dt	800V/ μs
Critical Rate of Rise of On-State Current, di/dt ($I_{TM} = 110\text{A}$, Gate Source 1.5A, $t_r \leq 0.5\mu\text{s}$, Repetitive, $T_J = +125^\circ\text{C}$)	100A/ μs
Gate Trigger Current ($V_A = 12\text{V}$, $I_A = 1\text{A}$, $T_J = +25^\circ\text{C}$), I_{GT}	
Minimum	30mA
Maximum	100mA
Gate Trigger Voltage ($V_A = 12\text{V}$, $I_A = 1\text{A}$, $T_J = +25^\circ\text{C}$), V_{GT}	
Minimum	0.8V
Maximum	2.5V
Holding Current ($V_A = 12\text{V}$, $I_A = 1\text{A}$, $T_J = +25^\circ\text{C}$), I_H	
Minimum	20mA
Maximum	150mA
Minimum Isolation Voltage 50Hz, RMS, $t = 1\text{min}$, $I_{ISOL} = 1\text{mA Max}$), V_{ISOL}	2500V
Storage Temperature Range, T_{stg}	-40° to $+140^\circ\text{C}$
Maximum Thermal Resistance (Single Side Cooled)	
Junction-to-Case, R_{thJC}	0.53 $^\circ\text{C/W}$
Case-to-Heat Sink, R_{thCH}	0.20 $^\circ\text{C/W}$

