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NTE649D, NTE649G, NTE649J, NTE649M Fast Rectifier DO-214AC (SMA) Type Package

Maximum Ratings and Electrical Characteristics: ($T_A = +25^\circ\text{C}$, Note 1, unless otherwise specified)

Maximum Repetitive Reverse Voltage, V_{RRM}	
NTE649D	200V
NTE649G	400V
NTE649J	600V
NTE649M	1000V
Average Rectified Forward Current ($T_A = +100^\circ\text{C}$), $I_{F(AV)}$	
1A	
Non-Replicative Peak Forward Surge Current (8.3ms Single Half Sine-Wave), I_{FSM}	
30A	
Power Dissipation, P_D	
1.19W	
Forward Voltage ($I_F = 1\text{A}$), V_F	
1.3V	
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$), t_{rr}	
NTE649D, NTE649G	150ns
NTE649J	250ns
NTE649M	500ns
Reverse Current (at Rated V_R), I_R	
$T_A = +25^\circ\text{C}$	5 μA
$T_A = +125^\circ\text{C}$	50 μA
Total Capacitance ($V_R = 4\text{V}$, $f = 1\text{MHz}$), C_T	
10pF	
Operating Junction Temperature Range, T_J	
-55° to $+150^\circ\text{C}$	
Storage Temperature Range, T_{stg}	
-55° to $+150^\circ\text{C}$	
Thermal Resistance (Note 2)	
Junction-to-Ambient, R_{thJA}	105 $^\circ\text{C}/\text{W}$
Junction-to-Lead, R_{thJL}	32 $^\circ\text{C}/\text{W}$

Note 1. Stresses exceeding the “Absolute Maximum Ratings” may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The “Absolute Maximum Ratings” are stress ratings only.

Note 2. Device mounted on FR-4 PCB 0.013mm.

