

DUAL ULTRAFAST POWER RECTIFIER

Qualified per MIL-PRF-19500/616

DEVICES

1N6657	1N6657R
1N6658	1N6658R
1N6659	1N6659R

LEVELS

JAN
JANTX
JANTXV

ABSOLUTE MAXIMUM RATINGS ($T_C = +25^\circ\text{C}$ unless otherwise noted) (Per Diode)

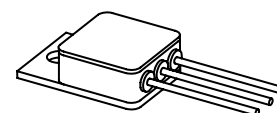
Parameters / Test Conditions	Symbol	Value	Unit
Peak Repetitive Reverse Voltage 1N6657, R 1N6658, R 1N6659, R	V_{RWM}	100 150 200	Vdc
Average Forward Current ⁽¹⁾ $T_C = +100^\circ\text{C}$	I_F	15	Adc
Peak Surge Forward Current	I_{FSM}	150	A(pk)
Thermal Resistance - Junction to Case	$R_{\theta jc}$	2.3	$^\circ\text{C/W}$

Note:

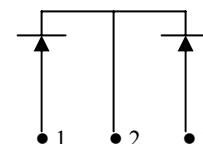
- (1) Derate @ 300mA/ $^\circ\text{C}$ above $T_C = 100^\circ\text{C}$
- (2) Pulse Test; 300 μs , duty cycle $\leq 2\%$

ELECTRICAL CHARACTERISTICS ($T_A = +25^\circ\text{C}$, unless otherwise noted)

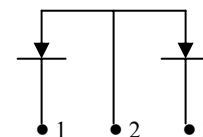
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Breakdown Voltage ⁽²⁾ $I_R = 500\mu\text{Adc}$ 1N6657, R 1N6658, R 1N6659, R	V_{BR}	100 150 200		Vdc
Forward Voltage ⁽²⁾ $I_F = 10\text{Adc}$ $I_F = 20\text{Adc}$	V_{F1} V_{F2}		1.0 1.2	Vdc
Reverse Leakage Current ⁽²⁾ $V_R = 100\text{V}$ $V_R = 150\text{V}$ $V_R = 200\text{V}$ 1N6657, R 1N6658, R 1N6659, R	I_{R1}		10	μAdc
Reverse Leakage Current $V_R = 100\text{V}, T_C = +100^\circ\text{C}$ $V_R = 150\text{V}, T_C = +100^\circ\text{C}$ $V_R = 200\text{V}, T_C = +100^\circ\text{C}$ 1N6657, R 1N6658, R 1N6659, R	I_{R2}		1.0	mAdc
Reverse Recovery Time $I_F = 1.0\text{A}, I_R = 1\text{A}, I_{RR} = 100\text{mA}$	t_{rr}		35	nS
Junction Capacitance $V_R = 10\text{Vdc}, f = 1.0\text{MHz}, V_{SIG} = 50\text{mV(p-p) max}$	C_J		150	pF



TO-254



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