

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)

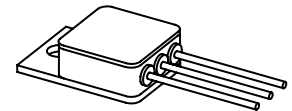
Parameters / Test Conditions	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RWM}	100	Vdc
		150	
		200	
Average Forward Current ⁽¹⁾	I_F	15	A dc
Peak Surge Forward Current	I_{FSM}	150	A(pk)
Thermal Resistance - Junction to Case	$R_{\theta jc}$	2.3	$^\circ\text{C/W}$

Note:

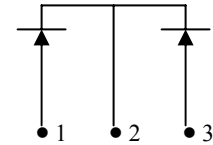
- (1) Derate @ 300mA/ $^\circ\text{C}$ above $T_C = 100^\circ\text{C}$
- (2) Pulse Test; 300 μs , duty cycle $\leq 2\%$

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

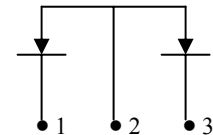
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Breakdown Voltage ⁽²⁾	V_{BR}	100		Vdc
$I_R = 500\mu\text{A dc}$		150		
		200		
Forward Voltage ⁽²⁾	V_{F1} V_{F2}		1.0 1.2	Vdc
$I_F = 10\text{A dc}$ $I_F = 20\text{A dc}$				
Reverse Leakage Current ⁽²⁾	I_{R1}		10	$\mu\text{A dc}$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



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