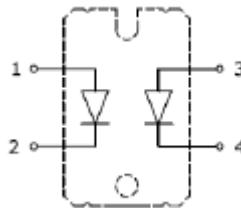


**PRELIMINARY DATASHEET**
**Parallel Fast Recovery, 2x100A, 600V Diodes  
 In Isolated SOT227 Package**

- Fast recovery
- Soft switching
- Low forward voltage
- RoHS compliant
- Easy paralleling


**MAXIMUM RATINGS (per Diode), at  $T_j = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	$V_{RRM}$	600	V
Continuous forward current $T_c = 80^\circ\text{C}$	$I_F$	100	A
Maximum repetitive forward current $T_c = 25^\circ\text{C}$ , $t_p$ limited by $T_{jmax}$ , $D = 0.5$	$I_{FRM}$	200	
Operating junction and storage temperature	$T_j, T_{stg}$	-55... +175	$^\circ\text{C}$

**Thermal and Isolation Characteristics**

Parameter	Symbol	Max. Value	Units
<b>Characteristics</b>			
Thermal resistance, junction to case, per Diode	$R_{thJC}$	0.80	$^\circ\text{C}/\text{W}$
Thermal resistance, junction to ambient	$R_{thJA}$	40	
Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds)	$V_{iso}$	3000	V

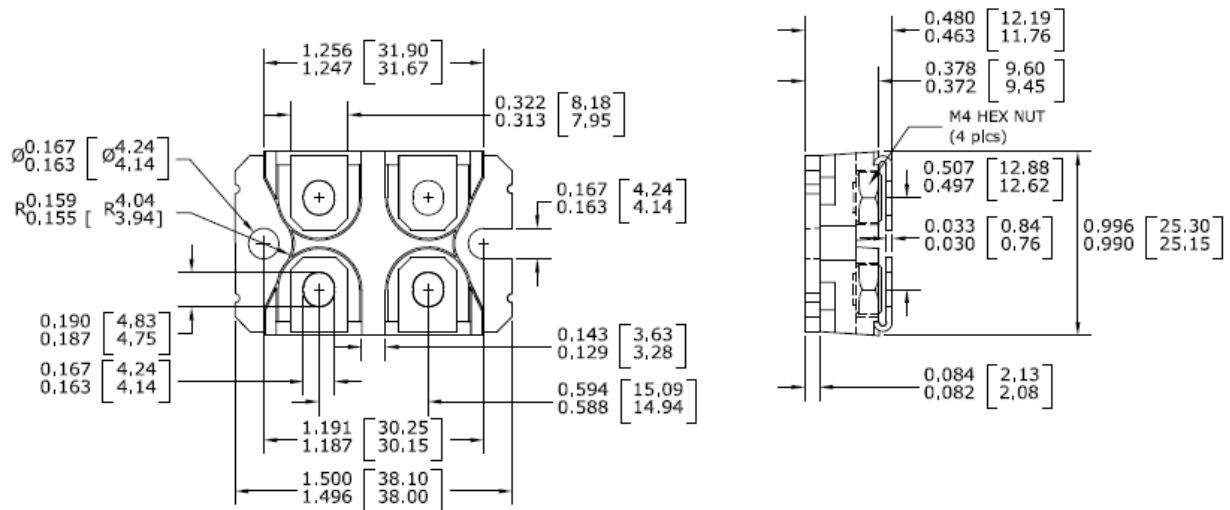
**Electrical Characteristics (per Diode), at  $T_j = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
<b>Static Characteristics</b>					
Reverse leakage current $V_R = 600\text{V}$ , $T_j = 25^\circ\text{C}$	$I_R$	-	-	27	$\mu\text{A}$
Forward voltage drop $I_F = 100\text{A}$ , $T_j = 25^\circ\text{C}$	$V_F$	-	1.6	2.0	V
$I_F = 100\text{A}$ , $T_j = 150^\circ\text{C}$		-	1.5	-	

**Electrical Characteristics (per Diode), at  $T_j = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
<b>Dynamic Characteristics</b>					
Reverse recovery time $V_R = 400\text{V}$ , $I_F = 100\text{A}$ , $di_F/dt = 1300\text{A}/\mu\text{s}$ , $V_{GE} = -15\text{V}$ $T_j = 25^\circ\text{C}$	$t_{rr}$	-	70	-	ns
Peak reverse recovery current $V_R = 400\text{V}$ , $I_F = 100\text{A}$ , $di_F/dt = 1300\text{A}/\mu\text{s}$ , $V_{GE} = -15\text{V}$ $T_j = 25^\circ\text{C}$	$I_{rrm}$	-	50	-	A
$V_R = 400\text{V}$ , $I_F = 100\text{A}$ , $di_F/dt = 1300\text{A}/\mu\text{s}$ , $V_{GE} = -15\text{V}$ $T_j = 125^\circ\text{C}$		-	60	-	
Recovered charge $V_R = 400\text{V}$ , $I_F = 100\text{A}$ , $di_F/dt = 1300\text{A}/\mu\text{s}$ , $V_{GE} = -15\text{V}$ $T_j = 25^\circ\text{C}$	$Q_r$	-	3.0	-	$\mu\text{C}$
$V_R = 400\text{V}$ , $I_F = 100\text{A}$ , $di_F/dt = 1300\text{A}/\mu\text{s}$ , $V_{GE} = -15\text{V}$ $T_j = 125^\circ\text{C}$		-	6.3	-	
Reverse recovery energy $V_R = 400\text{V}$ , $I_F = 100\text{A}$ , $di_F/dt = 1300\text{A}/\mu\text{s}$ , $V_{GE} = -15\text{V}$ $T_j = 25^\circ\text{C}$	$E_{rec}$	-	0.5	-	mJ
$V_R = 400\text{V}$ , $I_F = 100\text{A}$ , $di_F/dt = 1300\text{A}/\mu\text{s}$ , $V_{GE} = -15\text{V}$ $T_j = 125^\circ\text{C}$		-	1.05	-	

**Package Outline Drawing**



**Disclaimer**

These specifications may not be considered as a guarantee of components characteristics. Components have to be tested depending on intended application as adjustments may be necessary. The use of **iQXPRZ Power Inc.** components in life support appliances and systems are subject to written approval of **iQXPRZ Power Inc.**