



**Reliability Report
(Q2015-013)**

**PLB171P Product Qualification
Single Pole, Normally Closed OptoMOS Relay**

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Summary

The PLB171P product has successfully passed IXYS ICD's requirements for product qualification.

Table 1: Device Information

Product Number	PLB171P
Package Type	6 Pin Flatpack
Assembly Site	Atec, Laguna, Philippines
Test Site	IXYS ICD BEV, Beverly, MA, USA

Table 2: Reliability Test Result

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Sample Size (SS)	# of Failures
HTRB	125°C, 75% WVDC, 1000 hrs	Mil-Std-883 M1005 JESD22-A-108	PLB171P TE3469	72	0
Thermal Shock	0 to 100°C, 10/10 dwells, 15 cycles	Mil-Std-883, M1011	PLB171P TE3469	55	0
Temperature Cycle	-55 to 125°C, 10/10 dwells, 300 cycles	Mil-Std-883, M1010, "B"	PLB171P TE3469	55	0
Hot Storage	125C, 1000 hrs	JESD22-A103-C	PLB171P TE3469	50	0
MSL	IR Reflow, Level 1	J-STD-020D.1	PLB171P TE3469	25	0

Table 3: ESD Results – 6 Pin Flatpack

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Highest Passed	Class
HBM	All Pins, 1.5kΩ, 100pF	JESD22- A114-E	PLB171P TE3469	+/-8000V	3B

Table 4: FIT Rate Summary

Qual Lot #	Stress Test	# of Devices	# of Fail	Hours Tested	Equivalent Dev. Hours	FIT Rate @ 60% CL
1	HTRB	72	0	1000	18,389,230	50.03

* HTRB FIT Rate was calculated based on the Acceleration Factor (AF) and equivalent device hours at 0.7eV of activation energy at 125°C test temperature and 40°C use temperature.

Approvals

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