



**Reliability Report
(Q2016-011)**

**PLA172P Product Qualification
800V Normally-Open, Single-Pole
6-Pin OptoMOS Relay**

October 17, 2016

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Summary

The PLA172P product has successfully passed IXYS ICD's requirements for product qualification.

Table 1: Device Information

Product Number	PLA172P
Package Type	6 Pin Flatpack (8 Pin Body)
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	PLA172PH TE3492	79	1
			PLA172PH TE3498	80	0
			PLA172PH TE3499	80	0
Thermal Shock	0 to 100°C, 10/10 dwells, 15 cycles	Mil-Std-883, M1011	PLA172P TE3568	55	0
			PLA172PH TE3498	55	0
			PLA172PH TE3499	55	0
Temperature Cycle	-55 to 125°C, 10/10 dwells, 300 cycles	Mil-Std-883, M1010, "B"	PLA172PH TE3492	77	0
			PLA172PH TE3498	77	0
			PLA172PH TE3499	77	0
Hot Storage	125C, 1000 hrs	JESD22-A103-C	PLA172P TE3568	50	0
			PLA172PH TE3492	50	0
			PLA172PH TE3499	50	0

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Sample Size (SS)	# of Failures
MSL	IR Reflow, Level 1	J-STD-020D.1	PLA172PH TE3492	25	0
			PLA172PH TE3498	25	0
			PLA172PH TE3499	25	0

Table 3: ESD Results

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Highest Passed	Class
HBM	All Pins, 1.5kΩ, 100pF	JESD22- A114-E	PLA172PH TE3492 TE3498 TE3499	+/-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	239	1	1000	61,042,026	33.26

* 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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