PERFORMANCE CHECKSHEET

Model: AVR-EB2A-B-AC22-VXI-X2-QTKA
Type: Semiconductor Device Tester
S.N.: 13849
Date: March 8, 2019

Basic specifications:

Output Amplitude: to +100 mA, -100 mA
Pulse Width (FWHM): 200 ns
Switching Time, + to -, 10%-90%: ≤ 500 ps (at mainframe)
PRF: 1 - 10 kHz
Jitter, Stability: OK
Prime Power: 100-240V AC, 50-60 Hz.

Test Waveforms

With a 1N4148 installed in the AVX-CA-AR1 test jig (S/N 13850), 40 mA/div, 2 ns/div:

I_F = +100 mA, I_R = -100 mA
Measured t_{RR} = 9.0 ns.

With a 1N5811US installed in the AVX-CA-AR1 test jig (S/N 13850), 40 mA/div, 10 ns/div:

I_F = +100 mA, I_R = -100 mA
Measured t_{RR} = 50 ns.
With a 1N4148 installed in the AVX-CA-DO35-QTKA test jig, 40 mA/div, 2 ns/div:

\[ I_F = +100 \text{ mA}, \ I_R = -100 \text{ mA} \]

Measured \( t_{RR} = 8.8 \text{ ns} \).

Same as previous, scaled to showing switching time, with a 1N4148 installed in the AVX-CA-DO35-QTKA test jig, 40 mA/div, 1 ns/div

Shows a 10%-90% transition time of \(~ 448 \text{ ps}\)
With a MMSD4148T1G installed in the AVX-CA-SOD123-QTKA test jig, 40 mA/div, 1 ns/div:

$I_F = +100$ mA, $I_R = -100$ mA

Measured $t_{RR} = 3.6$ ns.

-24V pulse output directly from mainframe, with the test jig bypassed (5 V/div, 1 ns/div):

Shows a 10%-90% transition time of ~ 271 ps.