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PERFORMANCE CHECKSHEET

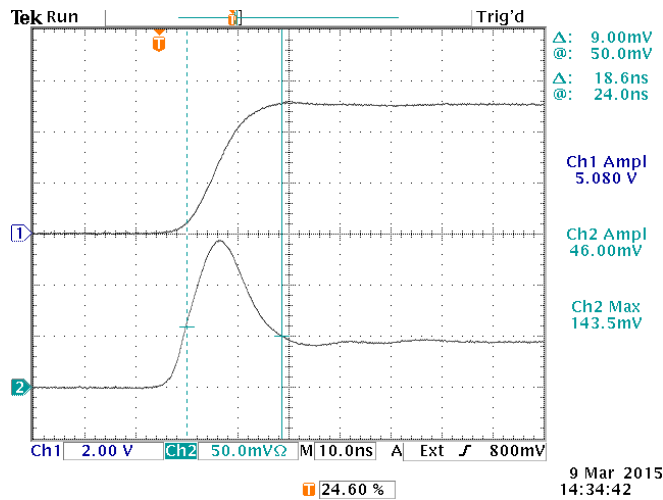
Model: AVR-EBF6-B-FTA  
Type: Forward Recovery Test System  
S.N.: 13265  
Date: March 9, 2015

Output Amplitude: 10 mA to 1 A  
Pulse Width (FWHM): 200 ns to 10 us  
Rise Time (10%-90%): 10 or 20 ns (depending on the filter used)  
PRF: 1 Hz - 10 kHz  
Jitter, Stability: OK  
Prime Power: 100-240V AC, 50-60 Hz.

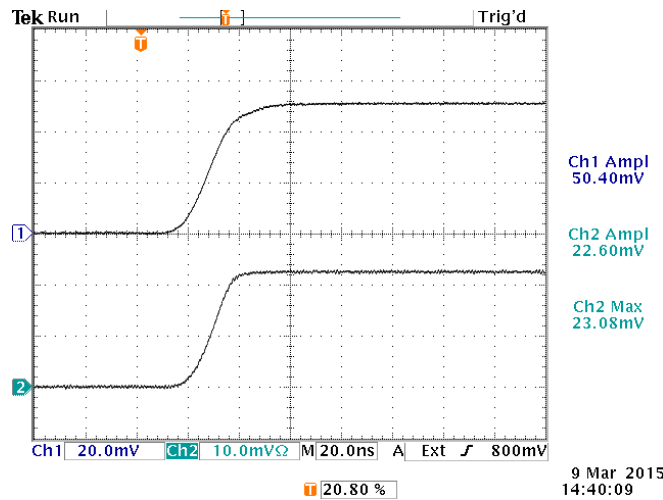
Basic specifications: →

Test Waveforms

High Current Test, 1N5819



Low Current Test, 1N5819



DUT = 1N5819 (an axial device, soldered onto the SOT23B daughterboard)

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Top waveform: MON output ( $V_{IN}/10$ , +50V, with ~10 ns rise time). 2 V/div, 10 ns/div.

Top waveform: MON output ( $V_{IN}/10$ , +0.5V, with ~20 ns rise time). 20 mV/div, 20 ns/div.

Bottom waveform: Main output ( $V_{DUT}/10$ ). 50 mV/div, 10 ns/div.

Bottom waveform: Main output ( $V_{DUT}/10$ ). 10 mV/div, 10 ns/div.

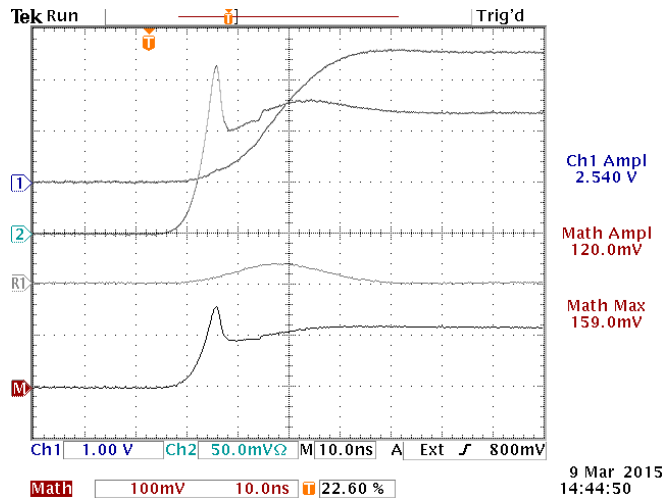
Shows  $V_{FM} = 1.435V$ , and  $t_{FR} = 18.6$  ns for  $I_F = 1A$ , using the recovery point 10% above steady state.

Under these conditions, no forward transient is observed.  $V_{FM}$  never exceeds 110% of  $V_F$ .

Tested using the AVX-TFR-SOT23B test jig and the AVX-FILT-10NS filter.

Tested using the AVX-TFR-SOT23B test jig and the AVX-FILT-20NS filter.

## SOT23 Device Test



DUT = Fairchild MMBD4148CC

“1” waveform: MON output ( $V_{IN}/10$ , +25V, with ~20 ns rise time). 1 V/div, 10 ns/div.

“2” waveform: Main output ( $V_{DUT}/10$ ). 50 mV/div, 10 ns/div.

“R1” waveform: Show the main output when the MMBD4148CC is replaced with a 0 $\Omega$  jumper, to establish the effect of the jig/daughterboard parasitic inductance.

“M” waveform: Shows “2” - “R1” - that is, the DUT waveform with the effect of the parasitic inductance removed. This shows that the narrow spike is the true forward transient, and it is extremely short.

Tested using the AVX-TFR-SOT23B test jig and the AVX-FILT-20NS filter.