



**THE DATASHEET OF
FMMT3906TA**



FMMT3905 FMMT3906

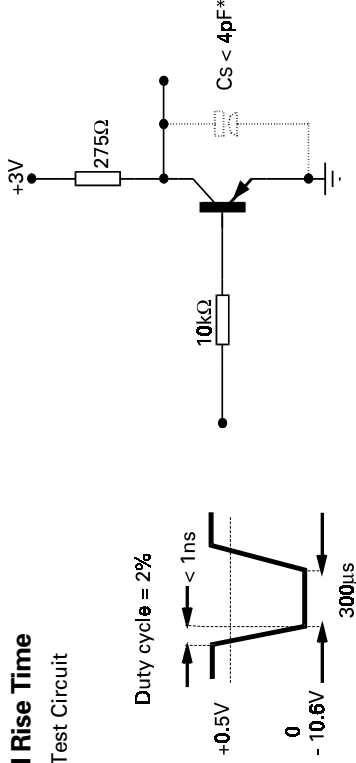
SOT23 PNP SILICON PLANAR SWITCHING TRANSISTOR ISSUE 4 – MARCH 2000

SWITCHING CHARACTERISTICS (at Tamb=25 °C unless otherwise stated)

PARAMETER	SYMBOL	FMMT3905		FMMT3906		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX		
Delay Time	t_d	35	35		35	ns	$V_{CC}=-3V, V_{BE(off)}=0.5V$ $I_C=-10mA, I_B=-1mA$ (See Fig.1)
Rise Time	t_r	35	35		35	ns	
Storage Time	t_s	200	225		225	ns	$V_{CC}=-3V, I_C=-10mA$ $I_B=-I_{B2}=-1mA$ (See Fig.2)
Fall Time	t_f	60	75		75	ns	

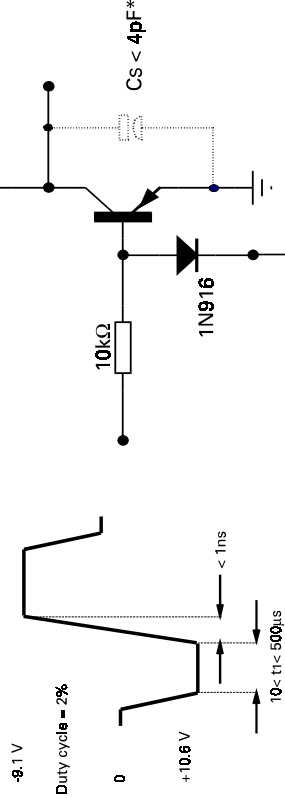
Delay and Rise Time

Equivalent Test Circuit



Storage and Fall Time

Equivalent Test Circuit



* Total shunt capacitance of test jig and connectors

PAGE NUMBER

PARTMARKING DETAILS - FMMT3905
FMMT3906

COMPLEMENTARY TYPES - FMMT3905
FMMT3906

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	FMMT3905	FMMT3906
Collector-Base Voltage	V_{CB}		
Collector-Emitter Voltage	V_{CE}		
Emitter-Base Voltage	V_{EB}		
Continuous Collector Current	I_C		
Power Dissipation at $T_{amb}=25^{\circ}C$	P_D		
Operating and Storage Temperature	T_{amb}		

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	FMMT3905		FMMT3906	
		MIN	MAX	MIN	MAX
Breakdown Voltages	$V_{(BR)CBO}$	-40		-40	
	$V_{(BR)CEO}$	-40		-40	
	$V_{(BR)EBO}$	-5		-5	
Cut-Off Currents	I_{CEX}				
	I_{BEX}				
Static Forward Current Transfer Ratio	h_{FE}	30		30	
		40		40	
		50		50	
		30		30	
Saturation Voltages	$V_{CE(sat)}$	200		200	
	$V_{BE(sat)}$	-0.65		-0.65	
Transition Frequency	f_T				
Output Capacitance	C_{obo}				
Input Capacitance	C_{ibo}				
Noise Figure	N				

*Measured under pulsed conditions. Pulses

FMMT3905 FMMT3906

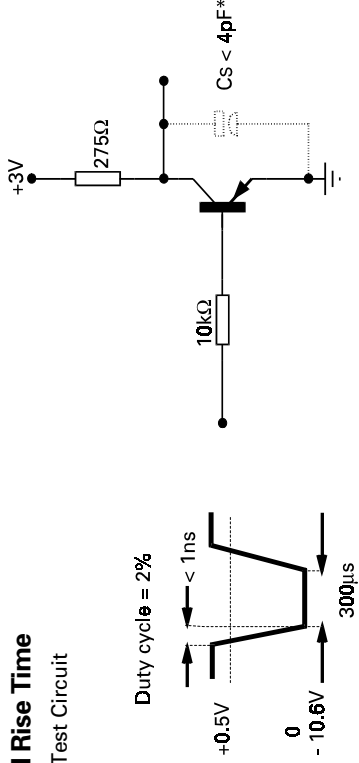
SOT23 NPN SILICON PLANAR SWITCHING TRANSISTOR ISSUE 3 – NOVEMBER 1995

SWITCHING CHARACTERISTICS (at Tamb=25 °C unless otherwise stated)

PARAMETER	SYMBOL	FMMT3905		FMMT3906		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX		
Delay Time	t_d	35	35		35	ns	$V_{CC}=-3V, V_{BE(off)}=0.5V$ $I_C=-10mA, I_B=-1mA$ (See Fig.1)
Rise Time	t_r	35	35		35	ns	(See Fig.1)
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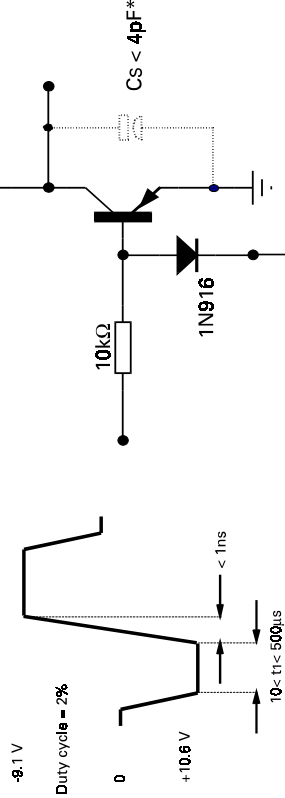
Delay and Rise Time

Equivalent Test Circuit



Storage and Fall Time

Equivalent Test Circuit



* Total shunt capacitance of test jig and connectors

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	FMMT3905	FMMT3906
Collector-Base Voltage			
Collector-Emitter Voltage			
Emitter-Base Voltage			
Continuous Collector Current			
Power Dissipation at Tamb=25°C			
Operating and Storage Temperature			


ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	FMMT3905		FMMT3906	
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	$V_{(BR)CEO}$	-40		-40	
	$V_{(BR)EBO}$	-5		-5	
Cut-Off Currents	I_{CEX}				
	I_{BEX}				
Static Forward Current Transfer Ratio	h_{FE}	30		30	
		40		40	
		50		50	
		30		30	
		15		15	
Saturation Voltages	$V_{CE(sat)}$				
	$V_{BE(sat)}$	-0.65		-0.65	
Transition Frequency	f_T			200	
Output Capacitance	C_{obo}				
Input Capacitance	C_{ibo}				
Noise Figure	N				

*Measured under pulsed conditions. Pulses

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