SOT23 PNP SILICON PLANAR SWITCHING TRANSISTOR

FMMT2907
FMMT2907A

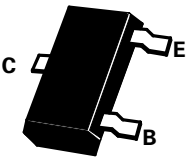
ISSUE 3 – FEBRUARY 1996 ✪

FEATURES

* Fast switching

COMPLIMENTARY TYPES - FMMT2907 – FMMT2222
- FMMT2907A – FMMT2222A

PARTMARKING DETAIL - FMMT2907 – 2BZ
FMMT2907A – 2F
FMMT2907R – 4P
FMMT2907AR – 5P



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	FMMT2907	FMMT2907A	UNIT
Collector-Base Voltage	V_{CBO}	-60		V
Collector-Emitter Voltage	V_{CEO}	-40	-60	V
Emitter-Base Voltage	V_{EBO}	-5		V
Continuous Collector Current	I_C	-600		mA
Power Dissipation at T_{amb}=25°C	P_{tot}	330		mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150		°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	FMMT2907		FMMT2907A		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-40		-60		V	I_C=-10μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60		-60		V	I_C=-10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		-5		V	I_E=-10μA, I_C=0
Collector-Emitter Cut-Off Current	I_{CEX}		-50		-50	nA	V_{CE}=-30V, V_{BE}=-0.5V
Collector Cut-Off Current	I_{CBO}		-20 -20		-10 -10	nA μA	V_{CB}=-50V, I_E=0 V_{CB}=-50V, I_E=0, T_{amb}=150°C
Base Cut-Off Current	I_B		-50		-50	nA	V_{CE}=-30V, V_{BE}=-0.5V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.4 -1.6		-0.4 -1.6	V V	I_C=-150mA, I_B=-15mA* I_C=-500mA, I_B=-50mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.3 -2.6		-1.3 -2.6	V V	I_C=-150mA, I_B=-15mA* I_C=-500mA, I_B=-50mA*
Static Forward Current Transfer Ratio	h_{FE}	35 50 75 100 30	300	75 100 100 100 50	300		I_C=-0.1mA, V_{CE}=-10V I_C=-1mA, V_{CE}=-10V I_C=-10mA, V_{CE}=-10V I_C=-150mA, V_{CE}=-10V* I_C=-500mA, V_{CE}=-10V*
Transition Frequency	f_T	200		200		MHz	I_C=-50mA, V_{CE}=-20V f=100MHz

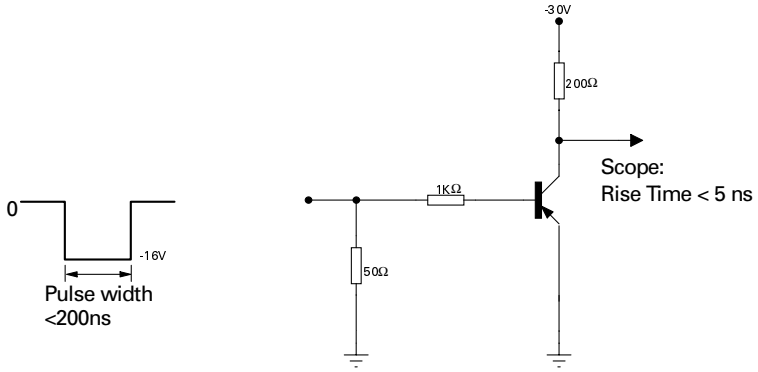
*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%

FMMT2907
FMMT2907A

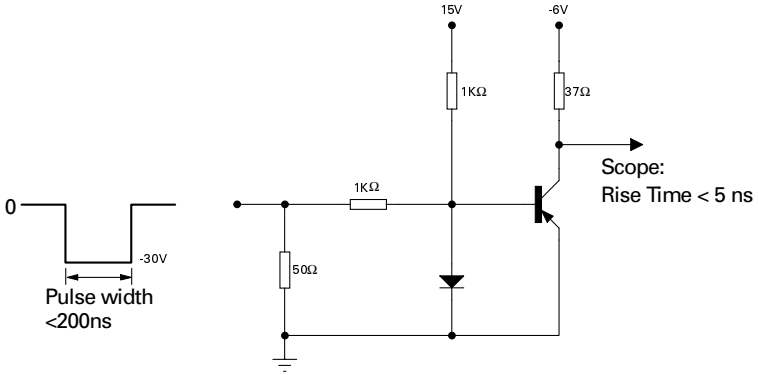
SWITCHING CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	FMMT2907		FMMT2907A		UNIT	CONDITIONS.
		TYP.	MAX.	TYP.	MAX.		
Output Capacitance	C_{obo}		8		8	pF	V_{CB}=-10V, I_E=0, f=100KHz
Input Capacitance	C_{ibo}		30		30	pF	V_{BE}=-2V, I_C=0 f=100KHz
Turn On Time	t_{on}	26	50	26	50	ns	V_{CE}=-30V I_C=-150mA, I_{B1}=-15mA (See Turn On Circuit)
Turn Off Time	t_{off}	70	110	70	110	ns	V_{CE}=-6V, I_C=-150mA I_{B1}= I_{B2}=-15mA (See Turn Off Circuit)

TURN ON TIME – TEST CIRCUIT



TURN OFF TIME – TEST CIRCUIT



littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.