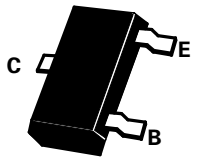
SOT23 PNP SILICON PLANAR SWITCHING TRANSISTOR

ISSUE 2 – MARCH 1995 ✪

FMMT4125

PARTMARKING DETAIL – ZD



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-30	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-4	V
Continuous Collector Current	I_C	-200	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).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-30		V	I_C=-10μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30		V	I_C=-1mA*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-4		V	I_E=-10μA
Collector Cut-Off Current	I_{CBO}		-50	nA	V_{CB}=-20V
Emitter Cut-Off Current	I_{EBO}		-50	nA	VEB=-3V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.4	V	I_C=-50mA, I_B=-5mA*
Base-Emitter SaturationVoltage	$V_{BE(sat)}$		0.95	V	IC=-50mA, I_B=-5mA*
Static Forward Current Transfer Ratio	h_{FE}	50 25	150		I_C=-2mA, V_{CE}=-1V* I_C=-50mA, V_{CE}=-1V*
Transistion Frequency	f_T	200		MHz	I_C=-10mA, V_{CE}=-20V, f=100MHz
Output Capacitance	C_{obo}		4.5	pF	V_{CB}=-5V, I_E=0, f=140KHz
Input Capacitance	C_{ibo}		10	pF	V_{BE}=-0.5V, I_E=0, f=140KHz
Noise Figure	N		5	dB	I_C=-200μA, V_{CE}=-5V, R_g=-2kΩ f=30Hz to 15KHz at 3dB points
Small Signal Current Transfer	h_{fe}	50	200		I_C=-2mA, V_{CE}=-1V, f=1KHz

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

PARAMETER	SYMBOL	TYP.	UNIT	CONDITIONS
Delay Time	t_d	25	ns	V_{CC}=-3V, $V_{BE(off)}$=-0.5V I_C=-10mA, I_{B1}=-1mA
Rise Time	t_r	18	ns	
Storage Time	t_s	140	ns	V_{CC}=-3V, I_C=-10mA I_{B1}=I_{B2}=-1mA
Fall Time	t_f	15	ns	

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

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