

SOT23 NPN SILICON PLANAR SMALL SIGNAL TRANSISTOR

FMMT2484

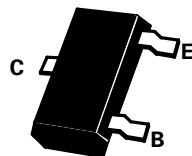
ISSUE 2 – MARCH 94



FEATURES

* 60 Volt V_{CE0}

PARTMARKING DETAIL – 4G



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	6	V
Peak Pulse Current	I_{CM}	200	mA
Continuous Collector Current	I_C	50	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60		V	$I_C=10\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	60		V	$I_C=10mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6		V	$I_E=10\mu A, I_C=0$
Collector Cut-Off Current	I_{CBO}		10 10	nA μA	$V_{CB}=45V, I_E=0$ $V_{CB}=45V, I_E=0, T_{amb}=150^{\circ}C$
Emitter Cut-Off Current	I_{EBO}		10	nA	$V_{BE}=5V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.35	V	$I_C=1mA, I_B=100\mu A^*$
Base-Emitter Voltage	V_{BE}		0.95	V	$I_C=1mA, V_{CE}=5V^*$
Static Forward Current Transfer Ratio	h_{FE}	30 100 20 175 200 250	500 800		$I_C=1\mu A, V_{CE}=5V^*$ $I_C=10\mu A, V_{CE}=5V^*$ $I_C=10\mu A, V_{CE}=5V, T_{amb}=55^{\circ}C$ $I_C=100\mu A, V_{CE}=5V^*$ $I_C=500\mu A, V_{CE}=5V^*$ $I_C=1mA, V_{CE}=5V^*$ $I_C=10mA, V_{CE}=5V^*$
Output Capacitance	C_{obo}		6	pF	$V_{CB}=5V, I_E=0, f=140KHz$
Input Capacitance	C_{ibo}		6	pF	$V_{BE}=0.5V, I_E=0, f=140KHz$
Noise Figure	N		3	dB	$I_C=200\mu A, V_{CE}=5V, R_g=2k\Omega$ $f=1kHz, f=200Hz$
			3	dB	$I_C=200\mu A, V_{CE}=5V, R_g=2k\Omega$ $f=30Hz$ to $15kHz$ at $-3dB$ points

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$