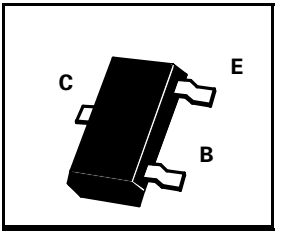
SOT23 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTORS

ISSUE 4 - NOVEMBER 1996 ✪

FMMT5550
FMMT5551

PARTMARKING DETAILS - FMMT5550 – 1FZ
FMMT5551 – ZG1

COMPLEMENTARY TYPES - FMMT5550 – FMMT5400
FMMT5551 – FMMT5401



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	FMMT5550	FMMT5551	UNIT
Collector-Base Voltage	V_{CBO}	160	180	V
Collector-Emitter Voltage	V_{CEO}	140	160	V
Emitter-Base Voltage	V_{EBO}	6	6	V
Continuous Collector Current	I_C	600	600	mA
Power Dissipation at T_{amb}=25°C	P_{tot}	330	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150		°C

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

		FMMT5550		FMMT5551			
PARAMETER	SYMBOL	MIN.	MAX.	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	160		180		V	I_C=100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	140		160		V	I_C=1mA
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6		6		V	I_E=10μA*
Collector Cut-Off Current	I_{CBO}		100 100		 50 50	nA μA nA μA	V_{CB}=100V V_{CB}=100V, T_A=100°C V_{CB}=120V V_{CB}=120V, T_A=100°C
Static Forward Current Transfer Ratio	h_{FE}	60 60 20	 250	80 80 30	 250		I_C=1mA, V_{CE}=5V I_C=10mA, V_{CE}=5V I_C=50mA, V_{CE}=5V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.15 0.25		0.15 0.20	V V	I_C=10mA, I_B=1mA I_C=50mA, I_B=5mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		1.0 1.2		1.0 1.2	V V	I_C=10mA, I_B=1mA I_C=50mA, I_B=5mA
Transition Frequency	f_T	100	300	100	300	MHz	I_C=10mA, V_{CE}=10V f=100MHz
Output Capacitance	C_{obo}		6.0		6.0	pF	V_{CB}=10V, f=1MHz
Small Signal	h_{fe}	50	200	50	260		I_C=1mA, V_{CE}=10V f=1KHz †
Noise Figure	NF		10		8	dB	I_C=250μA, V_{CE}=5V, R_S=1KΩ f=10Hz to 15.7KHz

† Periodic Sample Test Only

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