

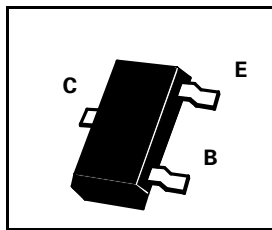
# SOT23 NPN SILICON PLANAR HIGH VOLTAGE TRANSISTORS

## FMMT5550 FMMT5551

ISSUE 4 - NOVEMBER 1996

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 $T_{amb}=25^{\circ}C$	$P_{tot}$	330	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150		$^{\circ}C$

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

PARAMETER	SYMBOL	FMMT5550		FMMT5551		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	160		180		V	$I_C=100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	140		160		V	$I_C=1mA$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6		6		V	$I_E=10\mu A^*$
Collector Cut-Off Current	$I_{CBO}$		100 100			nA $\mu A$ 50 50	$V_{CB}=100V$ $V_{CB}=100V, T_A=100^{\circ}C$ $V_{CB}=120V$ $V_{CB}=120V, T_A=100^{\circ}C$
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	$I_C=250\mu A, V_{CE}=5V,$ $R_S=1K\Omega$ $f=10Hz$ to $15.7KHz$

† Periodic Sample Test Only