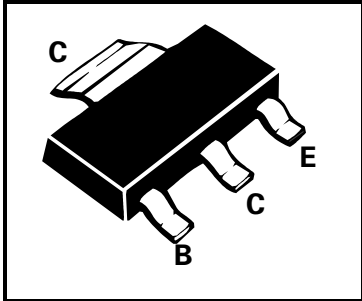


# SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

ISSUE 3 - OCTOBER 1995 ☆

## FZT491

COMPLEMENTARY TYPE – FZT591  
PARTMARKING DETAIL – FZT491



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	80	V
Collector-Emitter Voltage	$V_{CEO}$	60	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Peak Pulse Current	$I_{CM}$	2	A
Continuous Collector Current	$I_C$	1	A
Base Current	$I_B$	200	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltage	$V_{(BR)CBO}$	80			V	$I_C=100\mu A$
	$V_{(BR)CEO}$	60			V	$I_C=10mA^*$
	$V_{(BR)EBO}$	5			V	$I_E=100\mu A$
Collector Cut-Off Current	$I_{CBO}$			100	nA	$V_{CB}=60V$
Emitter Cut-Off Current	$I_{EBO}$			100	nA	$V_{EB}=4V$
Collector-Emitter Cut-Off Current	$I_{CES}$			100	nA	$V_{CES}=60V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.25	V	$I_C=500mA, I_B=50mA^*$ $I_C=1A, I_B=100mA^*$
				0.5	V	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.1	V	$I_C=1A, I_B=100mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1.0	V	$I_C=1A, V_{CE}=5V^*$
Static Forward Current	$h_{FE}$	100		300		$I_C=1mA, V_{CE}=5V$ $I_C=500mA, V_{CE}=5V^*$ $I_C=1A, V_{CE}=5V^*$ $I_C=2A, V_{CE}=5V^*$
		100				
		80				
		30				
Transition Frequency	$f_T$	150			MHz	$I_C=50mA, V_{CE}=10V,$ $f=100MHz$
Output Capacitance	$C_{obo}$			10	pF	$V_{CB}=10V, f=1MHz$

\*Measured under pulsed conditions. Pulse width=300 $\mu s$ .

For typical characteristics graphs see FMMT491 datasheet