

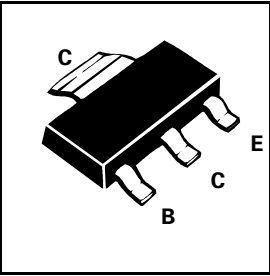
SOT223 NPN SILICON PLANAR HIGH CURRENT (HIGH PERFORMANCE) TRANSISTORS

FZT851
FZT853

ISSUE 2 - OCTOBER 1995

FEATURES

- * Extremely low equivalent on-resistance; $R_{CE(sat)}$ **44mΩ at 5A**
- * 6 Amps continuous current, up to 20 Amps peak current
- * Very low saturation voltages
- * Excellent h_{FE} characteristics specified up to 10 Amps



PARTMARKING DETAILS - DEVICE TYPE IN FULL

COMPLEMENTARY TYPES - FZT851 FZT951

FZT853 FZT953

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	FZT851	FZT853	UNIT
Collector-Base Voltage	V_{CBO}	150	200	V
Collector-Emitter Voltage	V_{CEO}	60	100	V
Emitter-Base Voltage	V_{EBO}	6	6	V
Peak Pulse Current	I_{CM}	20	10	A
Continuous Collector Current	I_C	6		A
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	3		W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150		$^{\circ}C$

*The power which can be dissipated assuming the device is mounted in a typical manner on a P.C.B. with copper equal to 4 square inch minimum

ELECTRICAL CHARACTERISTICS $T_{amb} = 25^{\circ}\text{C}$ (atunles)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	200	300	
Collector-Emitter Breakdown Voltage	$V_{(BR)CER}$	200	300	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	100	120	
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6	8	
Collector Cut-Off Current	I_{CBO}			10 1
Collector Cut-Off Current	I_{CER} $R \leq 1k\Omega$			10 1
Emitter Cut-Off Current	I_{EBO}			10
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		14 100	50 150 340
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1250
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1100
Static Forward Current Transfer Ratio	h_{FE}	100 100 50 20	200 200 100 30	300
Transition Frequency	f_T		130	
Output Capacitance	C_{obo}		35	
Switching Times	t_{on} t_{off}		50 1650	

*Measured under pulsed conditions. Pulse width=300 μ s. Duty cycle \leq 5%. Spice parameter data is available upon request for this device

