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ZUMT591TA**



# ZUMT591

## SOT323 PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

DRAFT SPECIFICATION ISSUE A – OCTOBER 94

### FEATURES

- \* Extremely low saturation voltage
  - \* 500mW power dissipation
  - \* 1 Amp continuous collector current ( $I_C$ )
- APPLICATIONS
- \* Ideally suited for space / weight critical applications

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Static Forward Current Transfer Ratio	$h_{FE}$	100		300		$I_C = -1\text{mA}, V_{CE} = -5\text{V}^*$ $I_C = -500\text{mA}, V_{CE} = -5\text{V}^*$ $I_C = -1\text{A}, V_{CE} = -5\text{V}^*$ $I_C = -2\text{A}, V_{CE} = -5\text{V}^*$
		100				
		80				
	15					
Transition Frequency	$f_T$	150			MHZ	$I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$ $f = 100\text{MHZ}$
Output Capacitance	$C_{ob0}$		10		pF	$V_{CB} = -10\text{V}, f = 1\text{MHZ}$

\* Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle@2%

### NOTE

This data is derived from development material and does not necessarily mean that the device will go into production

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	MA
Collector-Base Voltage	$V_{CBO}$	
Collector-Emitter Voltage	$V_{CEO}$	
Emitter-Base Voltage	$V_{EBO}$	
Peak Pulse Current	$I_{CM}$	
Continuous Collector Current	$I_C$	
Base Current	$I_B$	
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	
Operating and Storage Temperature Range	$T_j; T_{sig}$	

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80		
Collector-Emitter Breakdown Voltage	$V_{CE(sus)}$	-60		
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		
Collector Cut-Off Current	$I_{CBO}$			-10
Collector Cut-Off Current	$I_{CES}$			-10
Emitter Cut-Off Current	$I_{EBO}$			-10
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.1 -0.1 -0.1
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.1
Base-Emitter Turn On Voltage	$V_{BE(on)}$			-1.1

\* Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty

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