

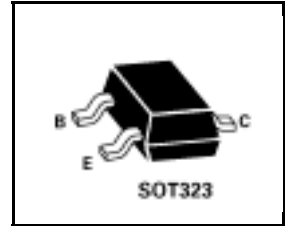
# SOT323 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

**ZUMT807-25**  
**ZUMT807-40**

## ISSUE 2 – FEBRUARY 1999

PARTMARKING DETAILS	ZUMT807-25	-	T8
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## ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-50	V
Collector-Emitter Voltage	$V_{CEO}$	-45	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Pulse Current	$I_{CM}$	-1	A
Continuous Collector Current	$I_C$	-500	mA
Base Current	$I_B$	-100	mA
Peak Base Current	$I_{BM}$	-200	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector Cut-Off Current	$I_{CBO}$			-0.1 -5	$\mu\text{A}$ $\mu\text{A}$	$V_{CB}=-20\text{V}, I_E=0$ $V_{CB}=-20\text{V}, I_E=0, T_{amb}=150^\circ\text{C}$
Emitter Cut-Off Current	$I_{EBO}$			-10	$\mu\text{A}$	$V_{EB}=-5\text{V}, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-700	mV	$I_C=-500\text{mA}, I_B=-50\text{mA}^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$			-1.2	V	$I_C=-500\text{mA}, V_{CE}=-1\text{V}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	100		600		$I_C=-100\text{mA}, V_{CE}=-1\text{V}^*$ $I_C=-500\text{mA}, V_{CE}=-1\text{V}^*$
		40				
			160	400		$I_C=-100\text{mA}, V_{CE}=-1\text{V}^*$
		250	600		$I_C=-100\text{mA}, V_{CE}=-1\text{V}^*$	
Transition Frequency	$f_T$		100		MHz	$I_C=-10\text{mA}, V_{CE}=-5\text{V}$ $f=35\text{MHz}$
Collector-base Capacitance	$C_{obo}$		8.0		pF	$I_E=I_C=0, V_{CB}=-10\text{V}$ $f=1\text{MHz}$

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