

# 2N5583

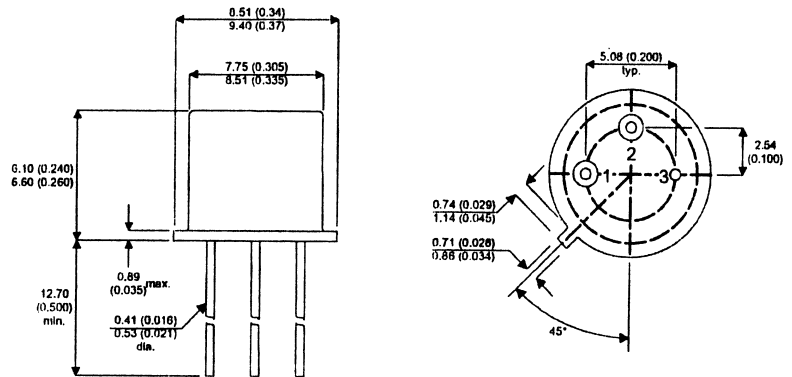
## PNP SILICON HIGH FREQUENCY TRANSISTOR

**Bipolar PNP Device in a  
 Hermetically sealed TO39  
 Metal Package.**

Dimensions in mm (inches).

### MAXIMUM RATINGS

$I_C$	500 mA
$V_{CE}$	-30 V
$P_{DISS}$	1.0 W @ $T_A = 25^\circ C$
	5.0 W @ $T_C = 25^\circ C$
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +200 °C
$\theta_{JC}$	350 °C/W



### TO39 (TO205AD) PINOUTS

1 – Emitter      2 – Base      3 – Collector

### CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 10 \text{ mA}$	-30			V
$BV_{CBO}$	$I_C = 10 \mu A$	-30			V
$BV_{EBO}$	$I_C = 100 \mu A$	-3.0			V
$I_{CBO}$	$V_{CB} = -20 \text{ V}$			50	nA
$I_{EBO}$	$V_{EB} = -2.0 \text{ V}$			500	nA
$h_{FE}$	$V_{CE} = -2.0 \text{ V}$ $I_C = 40 \text{ mA}$	20			---
	$V_{CE} = -2.0 \text{ V}$ $I_C = 100 \text{ mA}$	25		100	---
	$V_{CE} = -5.0 \text{ V}$ $I_C = 300 \text{ mA}$	15			---
$V_{CE(SAT)}$	$I_C = 100 \text{ mA}$ $I_B = 10 \text{ mA}$			-0.8	V
$V_{BE(ON)}$	$V_{CE} = -2.0 \text{ V}$ $I_C = 100 \text{ mA}$			-1.8	V
$f_t$	$V_{CE} = -10 \text{ V}$ $I_C = 40 \text{ mA}$ $f = 100 \text{ MHz}$	1000			MHz
	$V_{CE} = -10 \text{ V}$ $I_C = 100 \text{ mA}$ $f = 100 \text{ MHz}$	1300			
$C_{cb}$	$V_{CB} = -15 \text{ V}$ $f = 100 \text{ KHz}$			5.0	pF
$C_{eb}$	$V_{EB} = -0.5 \text{ V}$ $f = 100 \text{ KHz}$			35	pF
$r_{b'c_c}$	$V_{CB} = -10 \text{ V}$ $I_C = 50 \text{ mA}$ $f = 63.6 \text{ MHz}$		8.2		pS
$t_d$ $t_r$ $t_f$	$V_{CC} = -31.4 \text{ V}$ $I_C = 150 \text{ mA}$ $R_C = 160 \Omega$ $R_E = 26.6 \Omega$		1.2		nS
			2.2		
			2.0		