

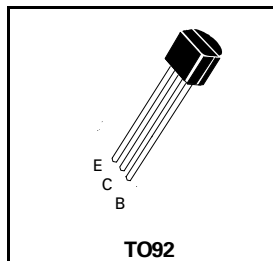
# PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

## BC640

ISSUE 1 – SEPT 93

### FEATURES

- \* 1 Amp continuous current
- \*  $P_{tot} = 800$  mW



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-80	V
Collector-Emitter Voltage	$V_{CEO}$	-80	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Continuous Collector Current	$I_C$	-1	A
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	800	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80			V	$I_C = -100\mu A, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-80			V	$I_C = -10mA, I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -10\mu A, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$			-0.1	$\mu A$	$V_{CE} = -30V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5	V	$I_C = -500mA, I_B = -50mA^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$			-1.0	V	$I_C = -500mA, V_{CE} = -2V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	25 40 25		160		$I_C = -5mA, V_{CE} = -2V^*$ $I_C = -150mA, V_{CE} = -2V^*$ $I_C = -500mA, V_{CE} = -2V^*$
Transition Frequency	$f_T$		200		MHz	$I_C = -50mA, V_{CE} = -2V$ $f = 100MHz$

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