

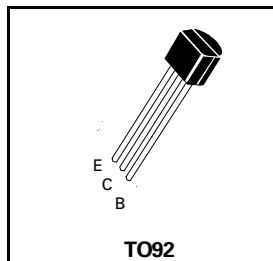
# NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

## BC368

ISSUE 1 – SEPT 93

### FEATURES

- \* 20 Volt  $V_{CE0}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 800$  mW



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	25	V
Collector-Emitter Voltage	$V_{CEO}$	20	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	$V_{(BR)CBO}$	25			V	$I_C=100\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	20			V	$I_C=10mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu A, I_C=0$
Collector Cut-Off Current	$I_{CBO}$			10	$\mu A$	$V_{CE}=25V$
Emitter Cut-Off Current	$I_{EBO}$			10	$\mu A$	$V_{EB}=5V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	$I_C=1A, I_B=100mA^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$			1	V	$I_C=1A, V_{CE}=1V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	50 85 60		375		$I_C=5mA, V_{CE}=10V^*$ $I_C=500mA, V_{CE}=1V^*$ $I_C=1A, V_{CE}=1V^*$
Transition Frequency	$f_T$	65			MHz	$I_C=10mA, V_{CE}=5V$ $f=100MHz$

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