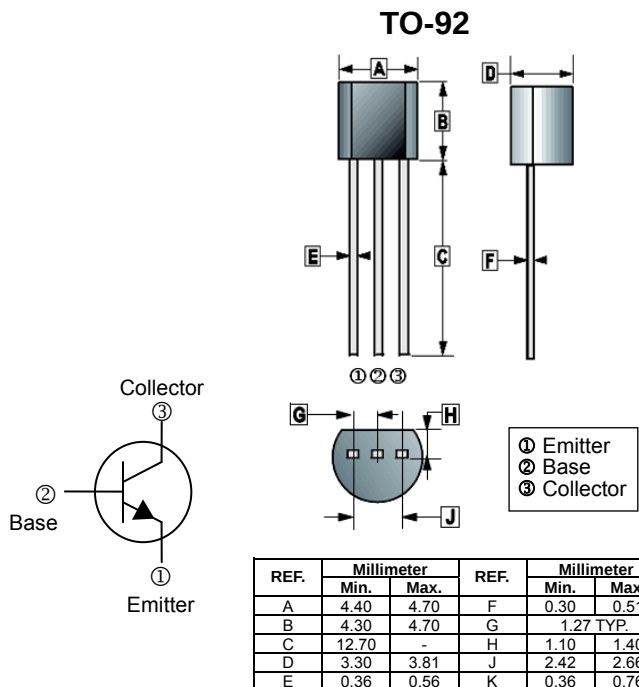


RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

High Voltage NPN Transistor



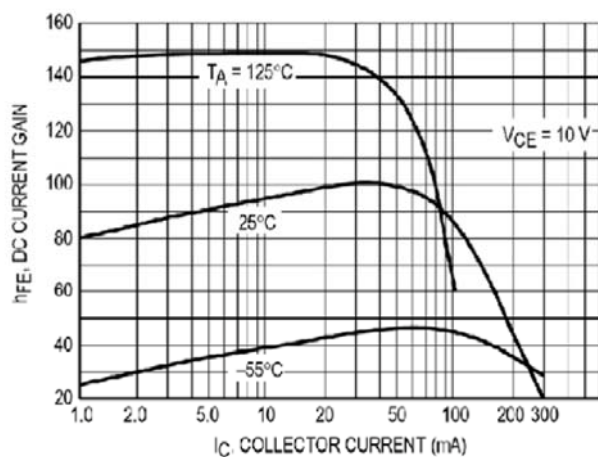
ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	RATING	UNIT
Collector to Base Voltage	V_{CBO}	400	V
Collector to Emitter Voltage	V_{CEO}	400	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	0.2	A
Collector Current - Pulsed	I_{CM}	0.3	A
Collector Power Dissipation	P_C	625	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

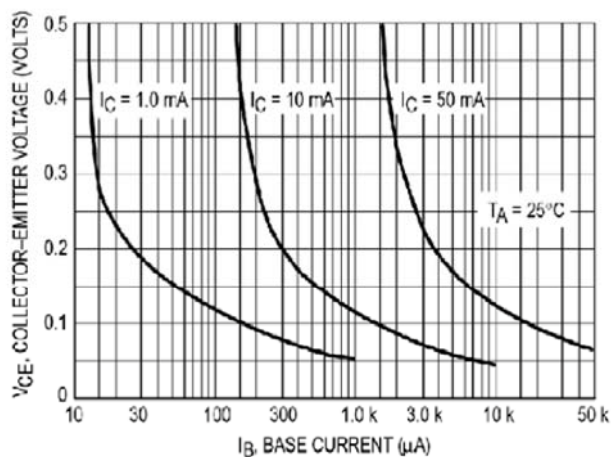
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	400	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector to Emitter Breakdown Voltage ¹	$V_{(BR)CEO}$	400	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=100\mu\text{A}, I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	0.1	μA	$V_{CB}=400\text{V}, I_E=0$
Collector Cut-Off Current	I_{CEO}	-	-	5	μA	$V_{CB}=400\text{V}, I_B=0$
Emitter Cut-Off Current	I_{EBO}	-	-	0.1	μA	$V_{EB}=4\text{V}, I_C=0$
DC Current Gain	$h_{FE(1)}$	80	-	300		$V_{CE}=10\text{V}, I_C=10\text{mA}$
	$h_{FE(2)}$	70	-	-		$V_{CE}=10\text{V}, I_C=1\text{mA}$
	$h_{FE(3)}$	40	-	-		$V_{CE}=10\text{V}, I_C=100\text{mA}$
	$h_{FE(4)}$	80	-	-		$V_{CE}=10\text{V}, I_C=50\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	-	-	0.2	V	$I_C=10\text{mA}, I_B=1\text{mA}$
	$V_{CE(sat)(2)}$	-	-	0.3		$I_C=50\text{mA}, I_B=5\text{mA}$
Base to Emitter Voltage	$V_{BE(sat)}$	-	-	0.75	V	$I_C=10\text{mA}, I_B=1\text{mA}$
	f_T	50	-	-	MHz	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=30\text{MHz}$

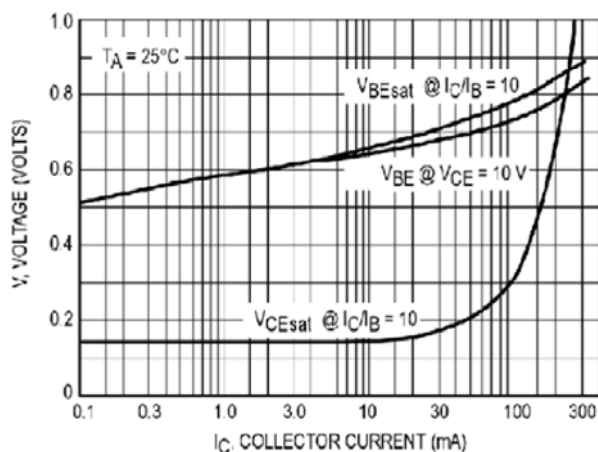
CHARACTERISTIC CURVES



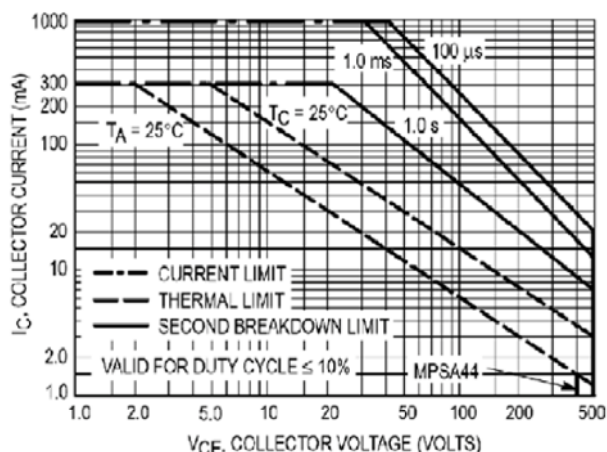
DC Current Gain



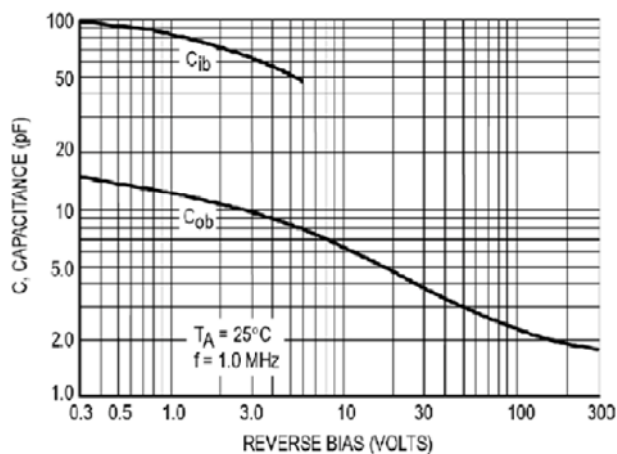
Collector Saturation Region



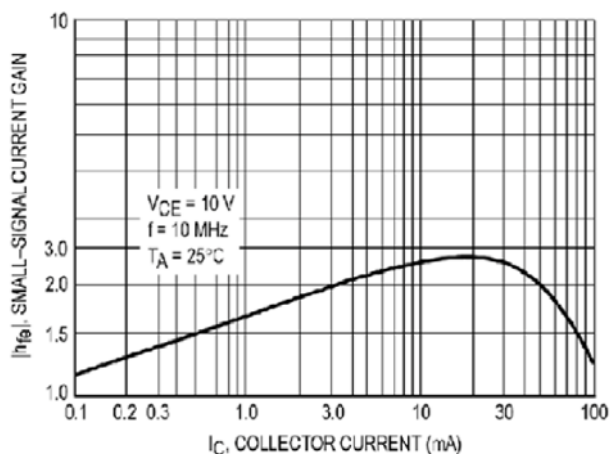
"On" Voltages



Active Region — Safe Operating Area



Capacitance



High Frequency Current Gain