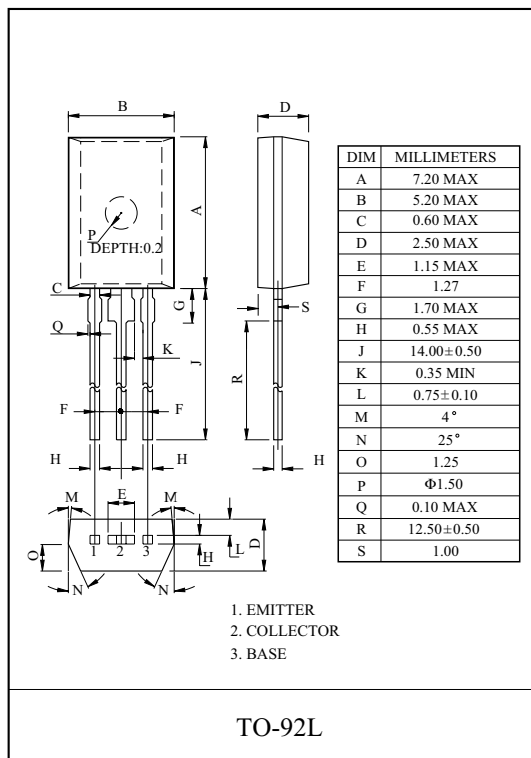


### FEATURE

- Low Collector-Emitter Saturation Voltage  $V_{CE(sat)}$ .
- High Collector Current Capability :  $I_C$  and  $I_{CP}$ .
- Higher Efficiency Leading to Less Heat Generation.

### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	-120	V
Collector-Emitter Voltage		$V_{CEO}$	-100	V
Emitter-Base Voltage		$V_{EBO}$	-5	V
Collector Current	DC	$I_C$	-1	A
	Pulse	$I_{CP}$	-3	
Base Current		$I_B$	-300	mA
Collector Power Dissipation		$P_C$	1	W
Junction Temperature		$T_j$	150	°C
Storage Temperature Range		$T_{stg}$	-55 ~ 150	°C

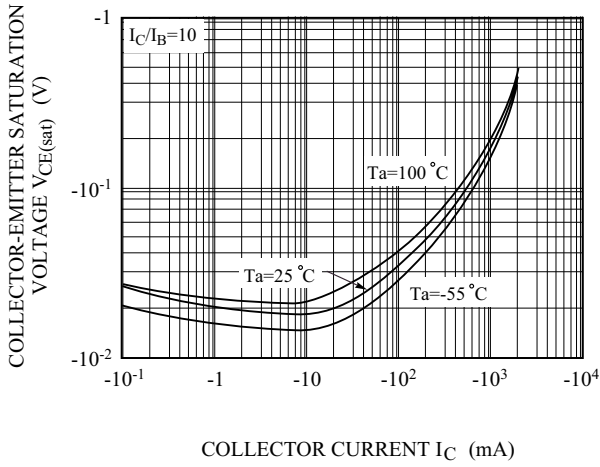


### ELECTRICAL CHARACTERISTICS (Ta=25°C)

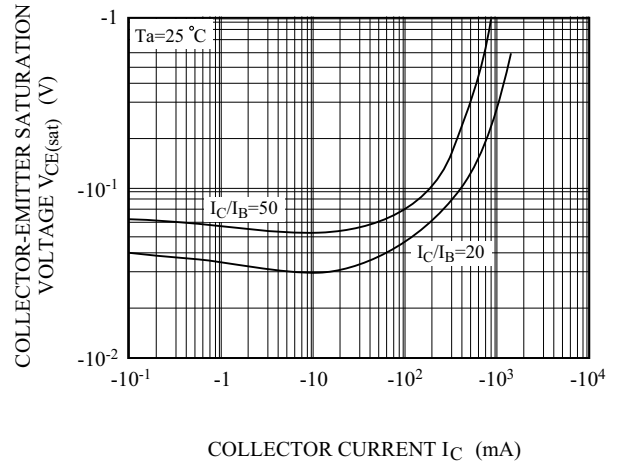
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-120	-	-	V
Collector-Emitter Breakdown Voltage **	$V_{(BR)CEO}$	$I_C = -1mA$	-100	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-5	-	-	V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -80V, I_E = 0A$	-	-	-100	nA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -4V, I_C = 0A$	-	-	-100	nA
Collector-Emitter Cut-Off Current	$I_{CES}$	$V_{CES} = -80V, V_{BE} = 0V$	-	-	-100	nA
Collector-Emitter Saturation Voltage **	$V_{CE(sat)}(1)$	$I_C = -250mA, I_B = -25mA$	-	-	-0.12	V
	$V_{CE(sat)}(2)$	$I_C = -500mA, I_B = -50mA$	-	-	-0.18	
	$V_{CE(sat)}(3)$	$I_C = -1A, I_B = -100mA$	-	-	-0.32	
Base-Emitter Saturation Voltage **	$V_{BE(sat)}$	$I_C = -1A, I_B = -100mA$	-	-	-1.1	V
Base-Emitter Voltag	$V_{BE}$	$V_{CE} = -5V, I_C = -1A$	-	-	-1.0	V
DC Current Gain **	$h_{FE}(1)$	$V_{CE} = -5V, I_C = -1mA$	150	-	-	
	$h_{FE}(2)$	$V_{CE} = -5V, I_C = -250mA$	150	-	-	
	$h_{FE}(3)$	$V_{CE} = -5V, I_C = -500mA$	150	-	450	
	$h_{FE}(4)$	$V_{CE} = -5V, I_C = -1A$	125	-	-	
Transition Frequency	$f_T$	$V_{CE} = -10V, I_C = -50mA, f = 100MHz$	100	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, f = 1MHz$	-	17	-	pF

\*\* Pulse Width = 300μs, Duty Cycle ≤2%.

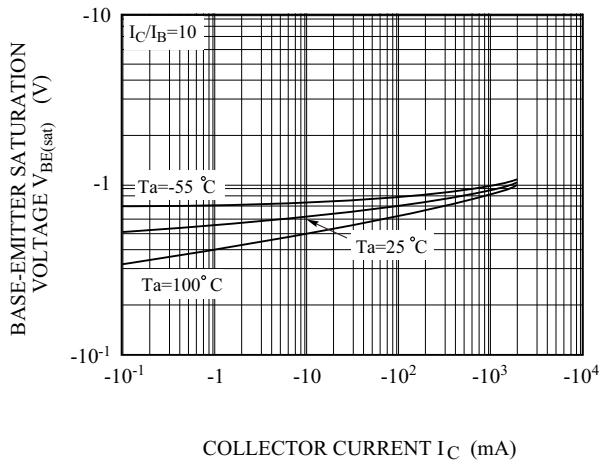
$V_{CE(sat)} - I_C$



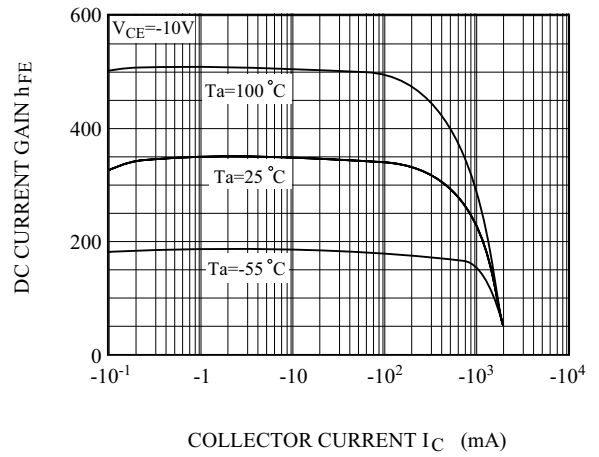
$V_{CE(sat)} - I_C$



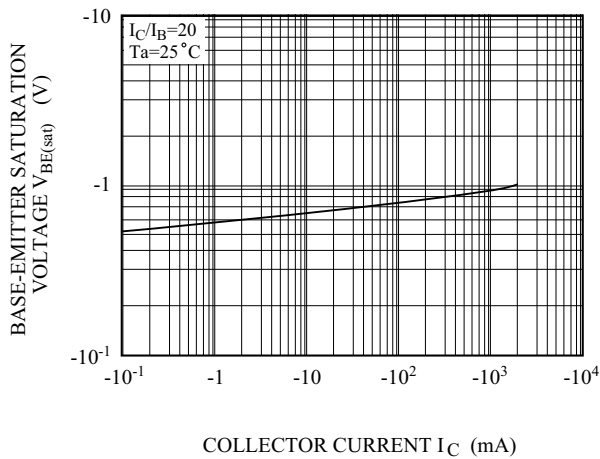
$V_{BE(sat)} - I_C$



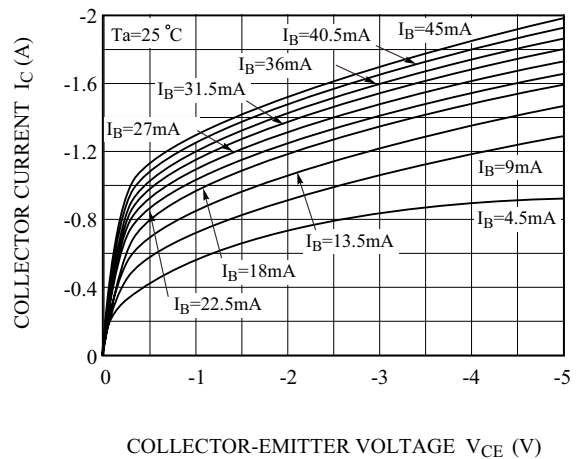
$h_{FE} - I_C$



$V_{BE(sat)} - I_C$



$I_C - V_{CE}$



## SAFE OPERATING AREA

