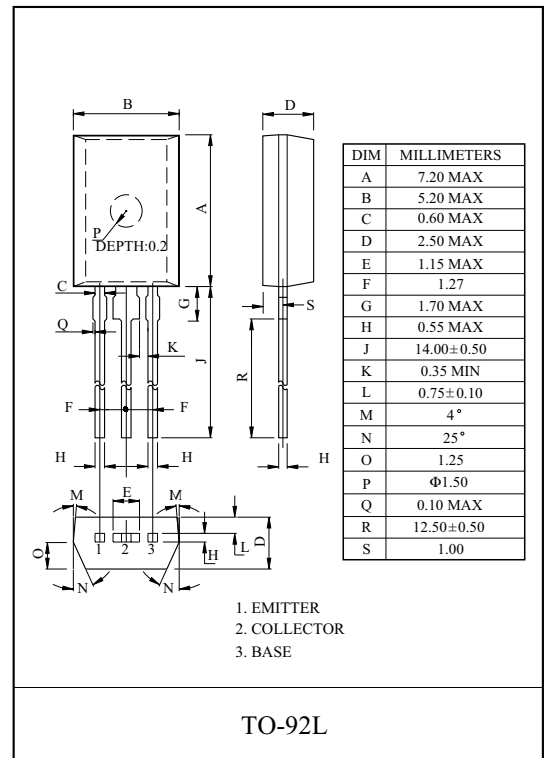


FEATURE

- 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

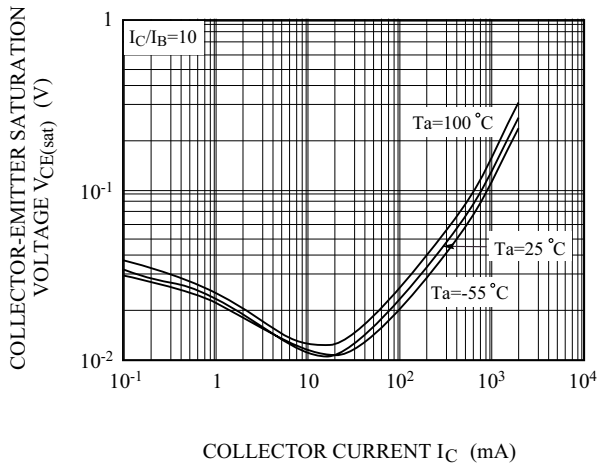


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

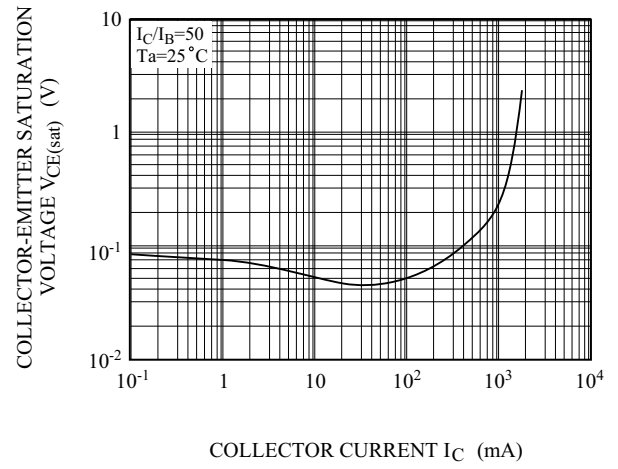
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A$	120	-	-	V
Collector-Emitter Breakdown Voltage **	$V_{(BR)CEO}$	$I_C=1mA$	100	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A$	5	-	-	V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=80V$	-	-	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 **	$V_{CE(sat)}(1)$	$I_C=100mA, I_B=10mA$	-	-	0.04	V
	$V_{CE(sat)}(2)$	$I_C=500mA, I_B=50mA$	-	-	0.12	
	$V_{CE(sat)}(3)$	$I_C=1A, I_B=100mA$	-	-	0.2	
Base-Emitter Saturation Voltage **	$V_{BE(sat)}$	$I_C=1A, I_B=100mA$	-	-	1.05	V
Base-Emitter Voltag	V_{BE}	$V_{CE}=10V, I_C=1A$	-	-	0.9	V
DC Current Gain **	$h_{FE}(1)$	$V_{CE}=10V, I_C=1mA$	150	-	-	
	$h_{FE}(2)$	$V_{CE}=10V, I_C=250mA$	150	-	500	
	$h_{FE}(3)$	$V_{CE}=10V, I_C=500mA$	100	-	-	
	$h_{FE}(4)$	$V_{CE}=10V, I_C=1A$	80	-	-	
Transition Frequency	f_T	$V_{CE}=10V, I_C=50mA, f=100MHz$	100	-	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$	-	9.5	-	pF

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

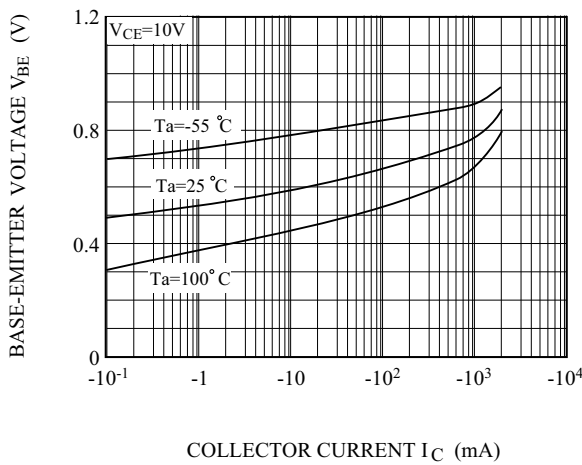
$V_{CE(sat)} - I_C$



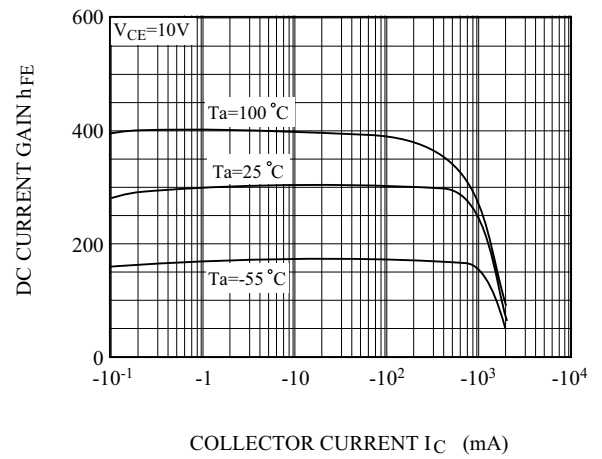
$V_{CE(sat)} - I_C$



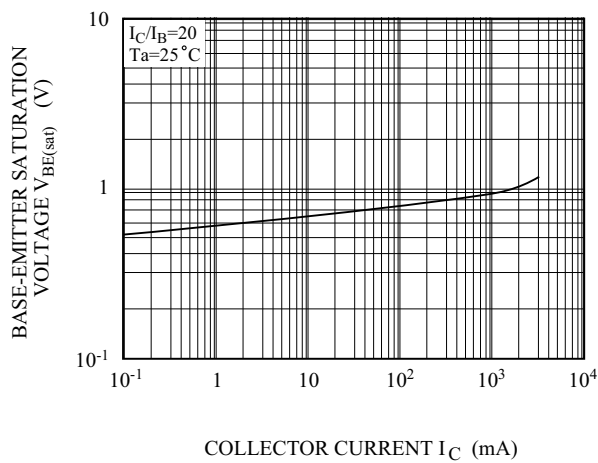
$V_{BE} - I_C$



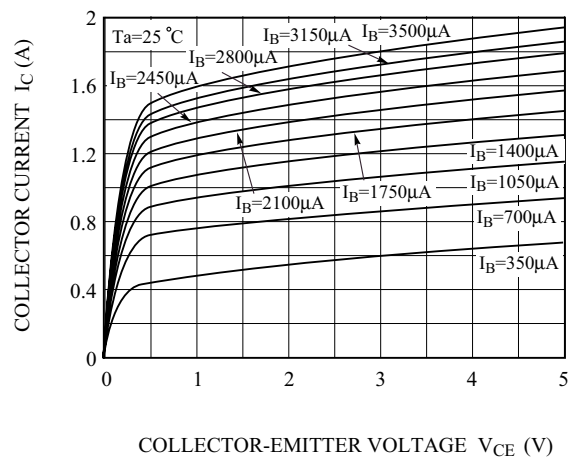
$h_{FE} - I_C$



$V_{BE(sat)} - I_C$



$I_C - V_{CE}$



SAFE OPERATING AREA

