

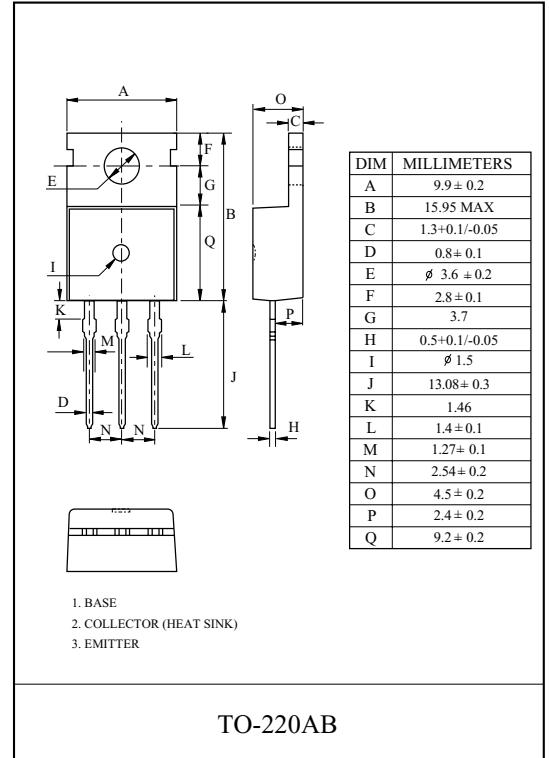
SWITCHING REGULATOR APPLICATION.
HIGH VOLTAGE SWITCHING APPLICATION.
HIGH SPEED DC-DC CONVERTER APPLICATION.
FLUORESCENT LIGHT BALLASTOR APPLICATION.

FEATURES

- Excellent Switching Times
: $t_{stg}=2.5\mu\text{S}(\text{Max.})$, $t_f=0.3\mu\text{S}(\text{Max.})$, at $I_C=2.5\text{A}$
- High Collector Voltage : $V_{CBO}=1050\text{V}$.

MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	1050	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	12	V
Collector Current	DC	I_C	5	A
	Pulse	I_{CP}	10	
Base Current		I_B	2.5	A
Collector Power Dissipation (Tc=25 °C)		P_C	75	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C

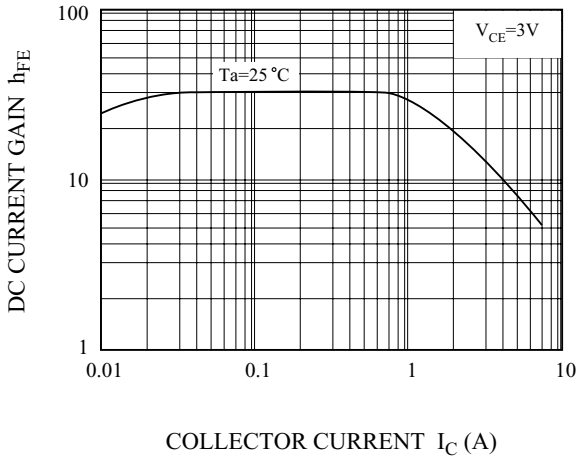


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

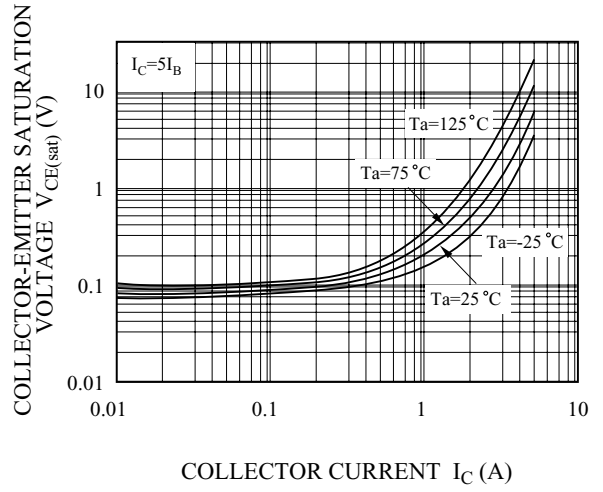
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Emitter Cut-off Current	I_{EBO}	$V_{EB}=14\text{V}$, $I_C=0$	-	-	10	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$	10	-	-	
	$h_{FE}(2)$	$V_{CE}=3\text{V}$, $I_C=0.8\text{A}$	20	-	40	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1\text{A}$, $I_B=0.2\text{A}$	-	-	0.5	V
		$I_C=3.5\text{A}$, $I_B=1\text{A}$	-	-	1.5	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=3.5\text{A}$, $I_B=1\text{A}$	-	-	1.2	V
		$I_C=2\text{A}$, $I_B=0.5\text{A}$	-	-	1.6	
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $f=0.1\text{MHz}$, $I_E=0$	-	45	-	pF
Turn-On Time	t_{on}	<p>$I_{B1}=+0.5\text{A}$, $I_{B2}=-1.0\text{A}$ DUTY CYCLE $\leq 2\%$</p>	-	-	2.0	μS
Storage Time	t_{stg}		-	-	2.5	μS
Fall Time	t_f		-	-	0.3	μS

Note : h_{FE} Classification R:20 ~ 30, O:25 ~ 35, Y: 30~40

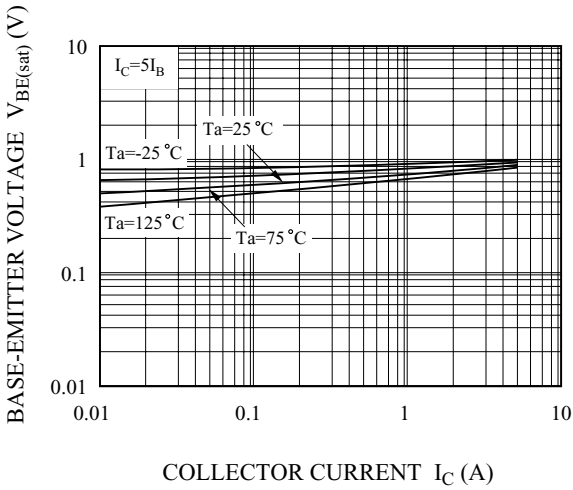
$h_{FE} - I_C$



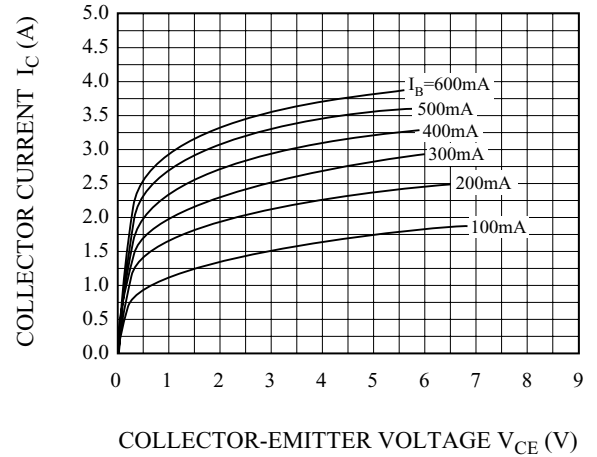
$V_{CE(sat)} - I_C$



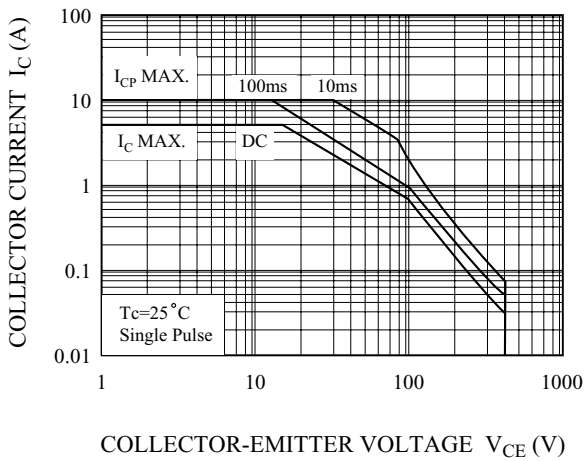
$V_{BE(sat)} - I_C$



$I_C - V_{CE}$



SAFE OPERATING AREA



$P_C - T_a$

