

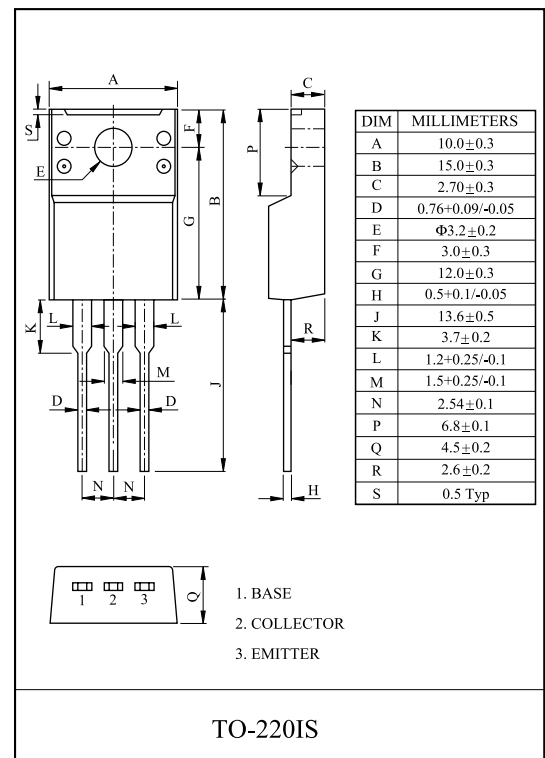
SWITCHING REGULATOR APPLICATION.
HIGH VOLTAGE SWITCHING APPLICATION.
HIGH SPEED DC-DC CONVERTER APPLICATION.
FLUORESCENT LIGHT BALLASTOR APPLICATION.

FEATURES

- Excellent Switching Times
: $t_{on}=0.8\ \mu\text{s}(\text{Max.})$, $t_f=0.9\ \mu\text{s}(\text{Max.})$, at $I_C=2\text{A}$
- High Collector Voltage : $V_{CBO}=700\text{V}$.

MAXIMUM RATING ($T_a=25^\circ\text{C}$)

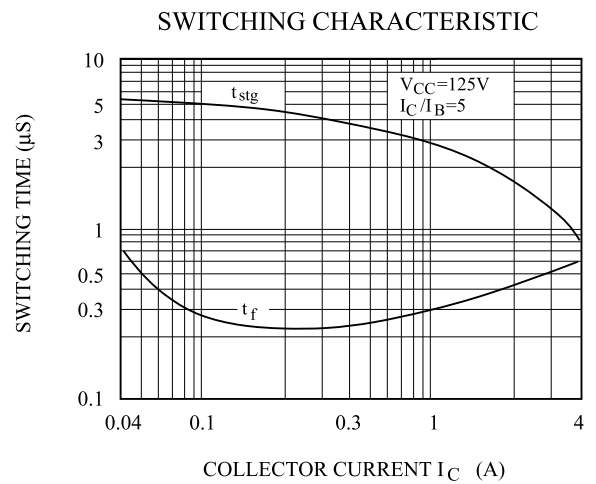
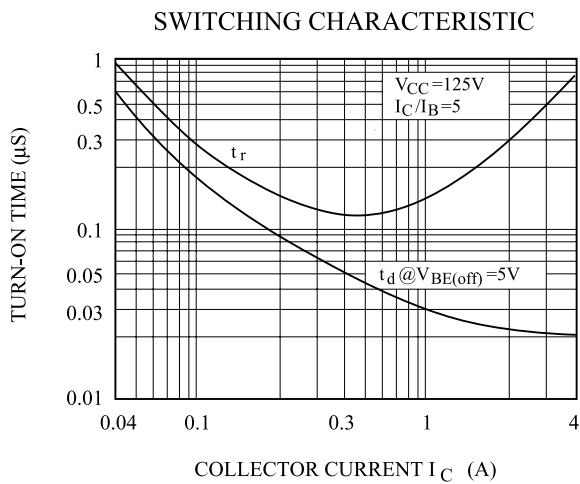
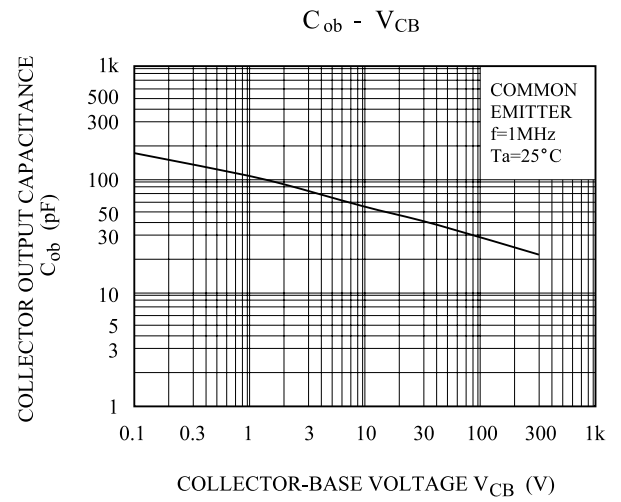
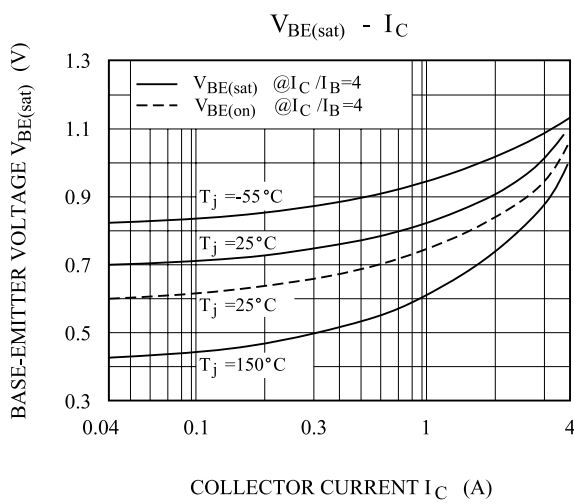
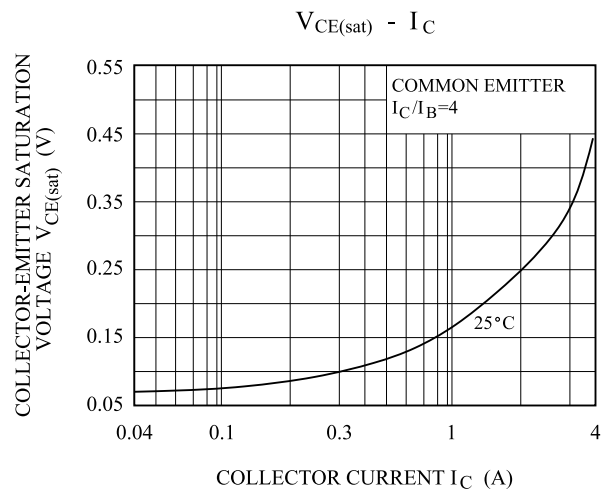
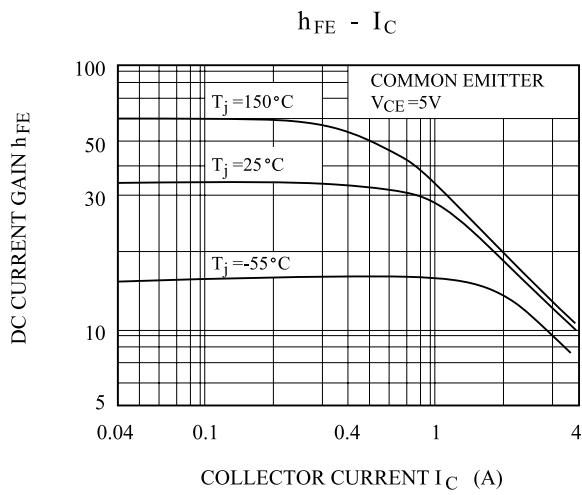
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	700	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	9	V
Collector Current	DC	I_C	4	A
	Pulse	I_{CP}	8	
Base Current		I_B	2	A
Collector Power Dissipation ($T_c=25^\circ\text{C}$)		P_C	30	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Emitter Cut-off Current	I_{EBO}	$V_{EB}=9\text{V}$, $I_C=0$	-	-	1	mA
DC Current Gain	$h_{FE}(1)$ (Note)	$V_{CE}=5\text{V}$, $I_C=1\text{A}$	18	-	35	
	$h_{FE}(2)$	$V_{CE}=5\text{V}$, $I_C=2\text{A}$	10	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1\text{A}$, $I_B=0.2\text{A}$	-	-	0.5	V
		$I_C=2\text{A}$, $I_B=0.5\text{A}$	-	-	0.6	
		$I_C=4\text{A}$, $I_B=1\text{A}$	-	-	1	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1\text{A}$, $I_B=0.2\text{A}$	-	-	1.2	V
		$I_C=2\text{A}$, $I_B=0.5\text{A}$	-	-	1.6	
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$, $f=0.1\text{MHz}$, $I_E=0$	-	65	-	pF
Transition Frequency	f_T	$V_{CE}=10\text{V}$, $I_C=0.5\text{A}$	4	-	-	MHz
Turn-On Time	t_{on}	$I_{B1}=I_{B2}=0.4\text{A}$ DUTY CYCLE $\leq 2\%$	-	-	0.8	μs
Storage Time	t_{stg}		-	-	4	μs
Fall Time	t_f		-	-	0.9	μs

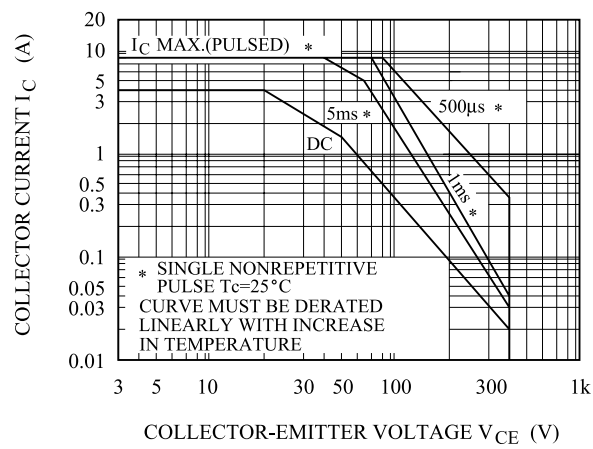
Note : h_{FE} Classification R:18 27, O:23 35

MJE13005F



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SAFE OPERATING AREA



$P_C - T_a$

