

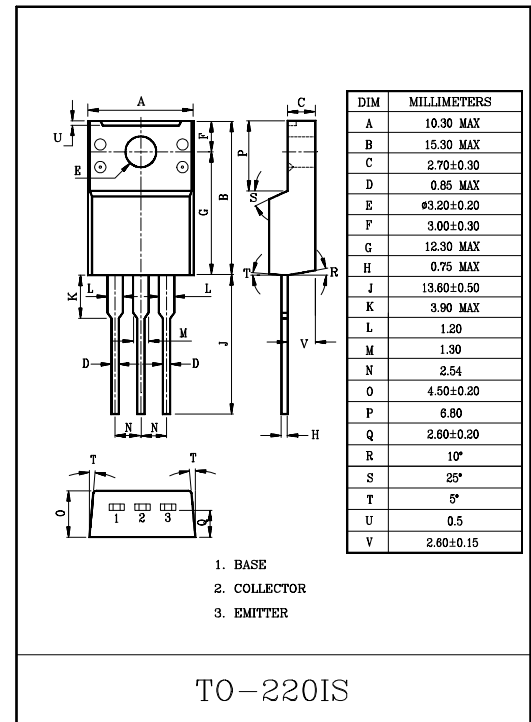
SWITCHING REGULATOR APPLICATION.
HIGH VOLTAGE SWITCHING APPLICATION.
HIGH SPEED DC-DC CONVERTER APPLICATION.

FEATURES

- Excellent Switching Times
: $t_{on}=1.6\mu S(\text{Max.})$, $t_f=0.7\mu S(\text{Max.})$, at $I_C=5A$
- High Collector Voltage : $V_{CBO}=700V$.

MAXIMUM RATINGS ($T_a=25^\circ C$)

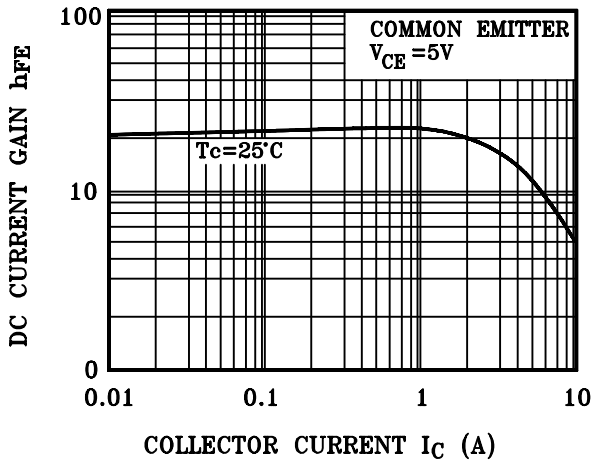
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	700	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	9	V
Collector Current	DC	I_C	8	A
	Pulse	I_{CP}	16	
Base Current		I_B	4	A
Collector Power Dissipation ($T_c=25^\circ C$)		P_C	40	W
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	$-55 \sim 150$	$^\circ C$

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

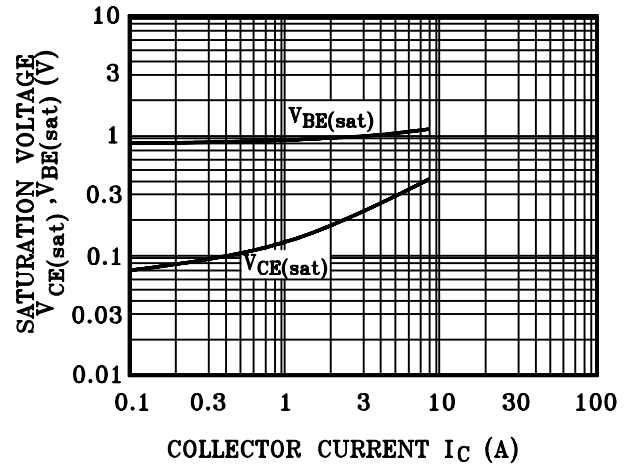
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Emitter Cut-off Current	I_{EBO}	$V_{EB}=9V$, $I_C=0$	—	—	1	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V$, $I_C=2A$	19	—	36	
	$h_{FE(2)}$	$V_{CE}=5V$, $I_C=5A$	10	—	30	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A$, $I_B=0.4A$	—	—	1	V
		$I_C=5A$, $I_B=1A$	—	—	2	
		$I_C=8A$, $I_B=2A$	—	—	3	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=2A$, $I_B=0.4A$	—	—	1.5	V
		$I_C=5A$, $I_B=1A$	—	—	1.6	
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $f=0.1MHz$, $I_E=0$	—	110	—	pF
Transition Frequency	f_T	$V_{CE}=10V$, $I_C=0.5A$	4	—	—	MHz
Turn-On Time	t_{on}		—	—	1.6	μS
Storage Time	t_{stg}		—	—	3	μS
Fall Time	t_f		—	—	0.7	μS

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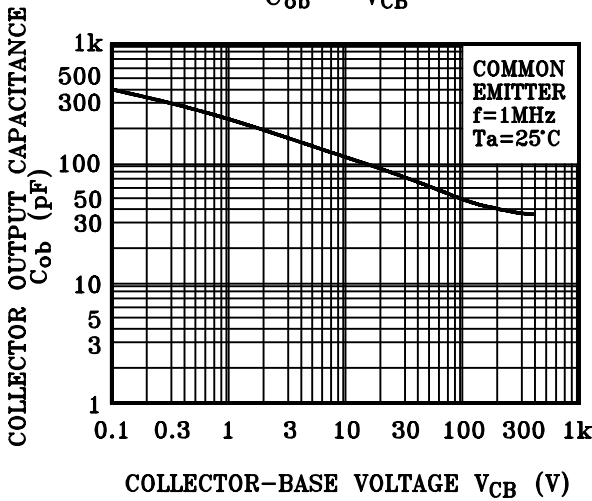
$h_{FE} - I_C$



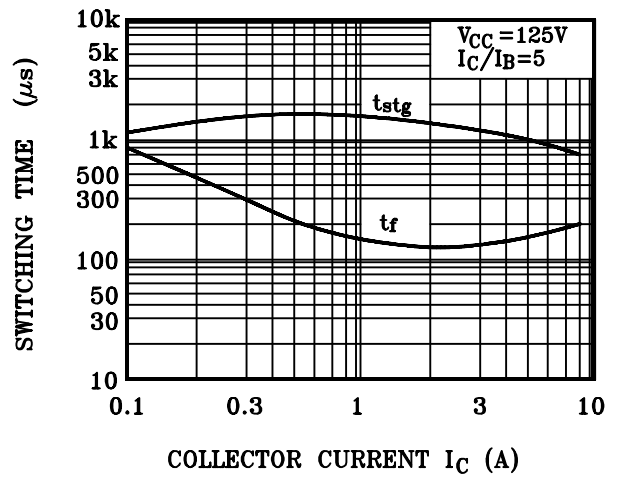
$V_{CE(sat)}, V_{BE(sat)} - I_C$



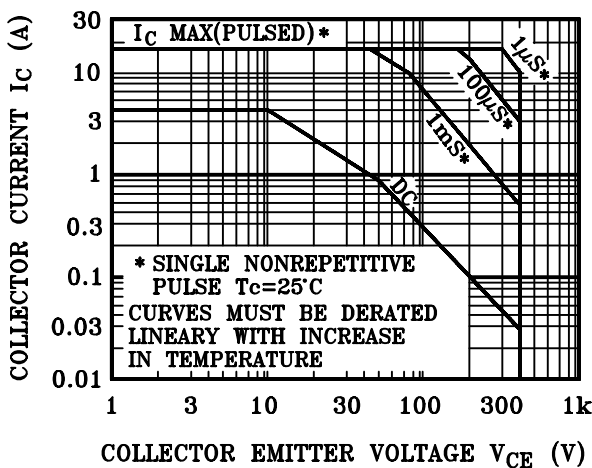
$C_{ob} - V_{CB}$



SWITCHING CHARACTERISTIC



SAFE OPERATING AREA



$P_C - T_a$

