2SC2790

SWITCHING REGULATOR AND HIGH VOLTAGE SWITCHING APPLICATIONS.

HIGH SPEED DC-DC CONVERTER APPLICATION.

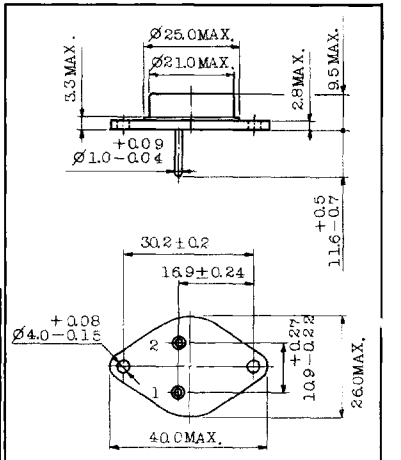
FEATURES:

. Excellent Switching Times

: t_r=1.0μs Max. , t_f=1.0μs Max. at I_C=0.5A

. High Collector Breakdown Voltage : V_{CEO}=800V

Unit in mm



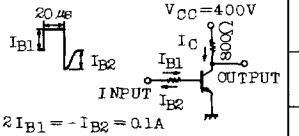
JEDEC	TO-204MA/TO-3
EIAJ	TC-3, TB-3
TOSHIBA	2-21E1A

Weight : 16g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector - Base Voltage	V_{CBO}	850	V
Collector - Emitter Voltage	V_{CEO}	800	V
Emitter - Base Voltage	V_{EBO}	7	V
Collector Current	I_C	2	A
Base Current	I_B	1	A
Collector Power Dissipation (Tc=25°C)	P_C	80	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

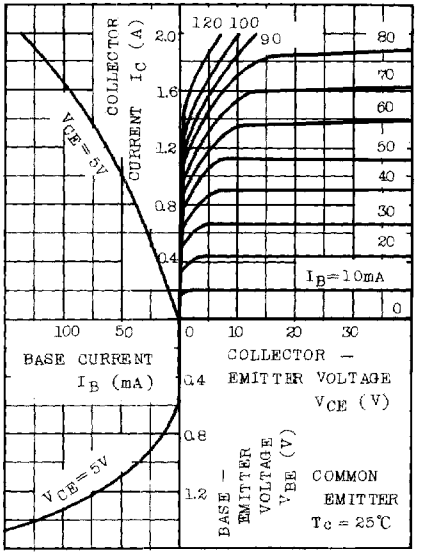
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=800V, I_E=0	-	-	100	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=7V, I_C=0	-	-	1	mA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	I_C=1mA, I_E=0	850	-	-	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=10mA, I_B=0	800	-	-	V
DC Current Gain		h_{FE}(Note)	V_{CE}=5V, I_C=0.5A	17	-	-	-
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$ (Note)	I_C=0.5A, I_B=0.05A	-	-	1.0	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$ (Note)	I_C=0.5A, I_B=0.05A	-	-	1.5	V
Switching Time	Rise Time	t_r		-	-	1.0	μs
	Storage Time	t_{stg}		-	-	4.0	
	Fall Time	t_f		-	-	1.0	

$2I_{B1} = -I_{B2} = 0.1A$

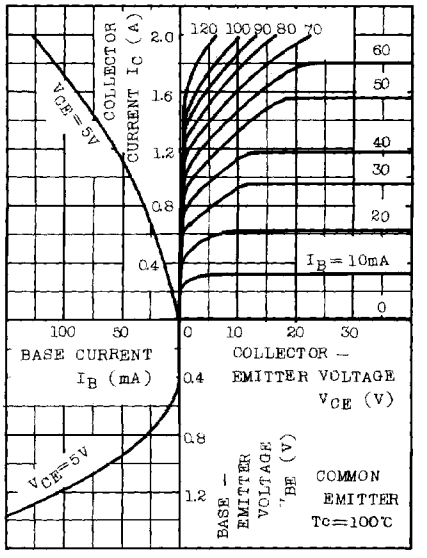
DUTY CYCLE ≦ 1%

Note : Pulse Test : Pulse Width ≦ 300μs, Duty Cycle ≦ 2%

STATIC CHARACTERISTICS



STATIC CHARACTERISTICS



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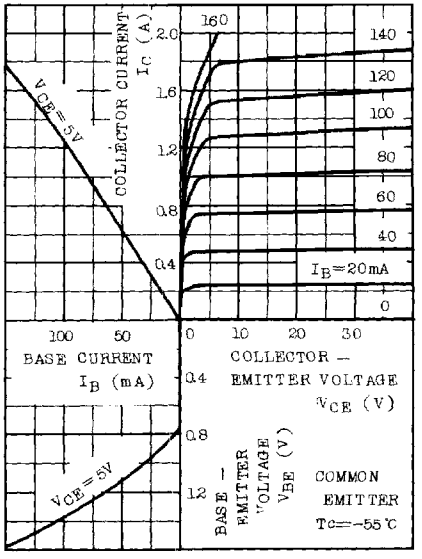
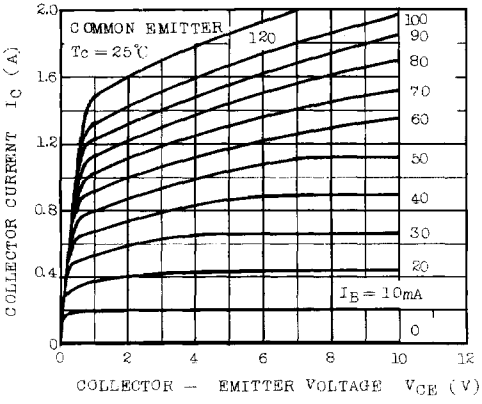


I_C – V_{CE} (LOW VOLTAGE REGION)



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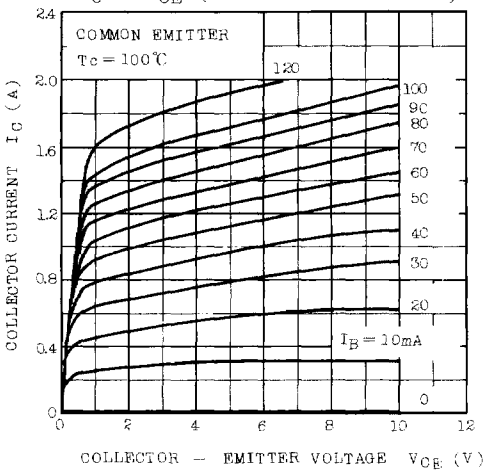

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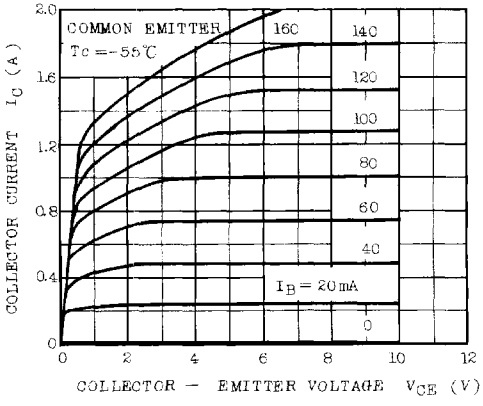
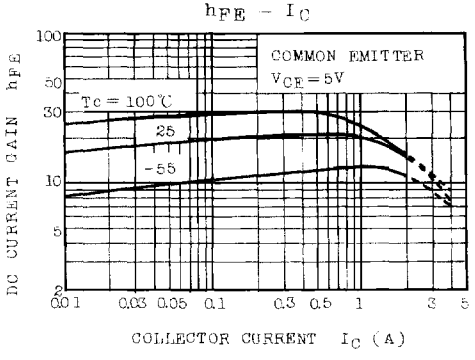
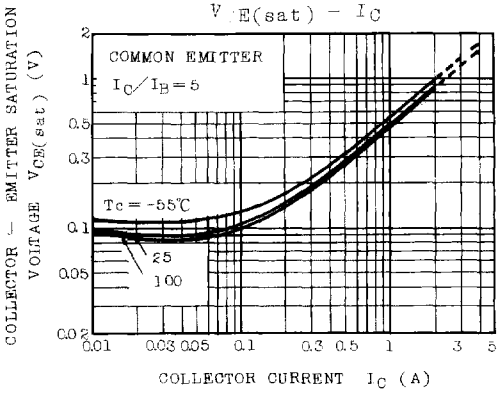


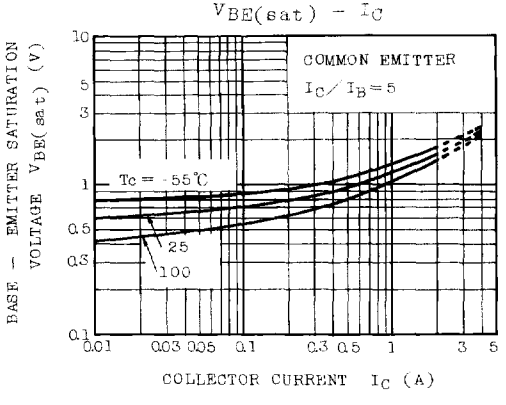
h_{FE} – I_C



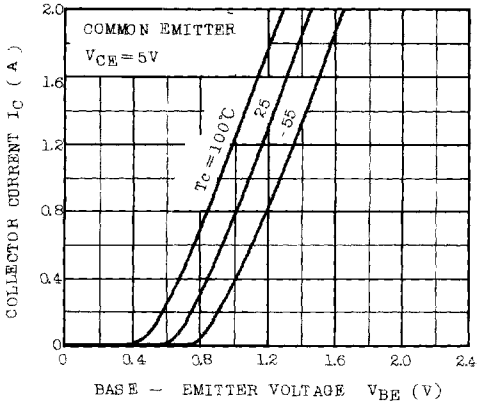
$V_{CE(sat)}$ – I_C



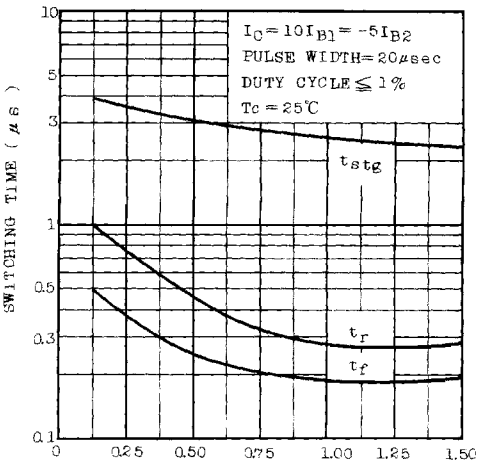
$V_{BE(sat)}$ – I_C



I_C - V_{BE}



SWITCHING CHARACTERISTICS



SAFE OPERATING AREA