

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07787 D Y-33-15

**2SD797**

SILICON NPN TRIPLE DIFFUSED TYPE

HIGH POWER AMPLIFIER APPLICATIONS.  
HIGH POWER SWITCHING APPLICATIONS.  
DC-DC CONVERTER APPLICATIONS.  
REGULATOR APPLICATIONS.

## FEATURES:

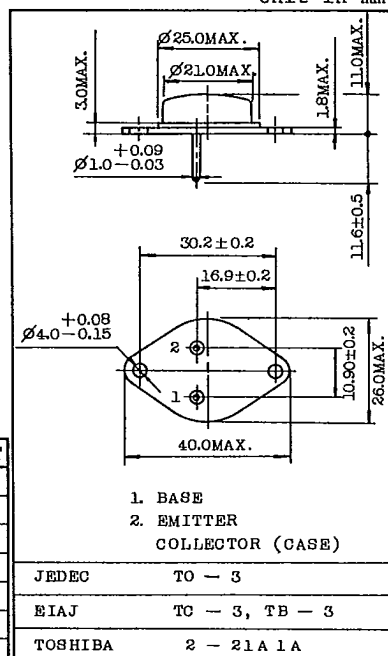
- High Power Dissipation :  $P_C=200W$  ( $T_c=25^\circ C$ )
- High Collector Current :  $I_C=30A$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	80	V
Emitter-Base Voltage	$V_{EBO}$	7	V
Collector Current	$I_C$	30	A
Base Current	$I_B$	8	A
Collector Power Dissipation ( $T_c=25^\circ C$ )	$P_C$	200	W
Junction Temperature	$T_j$	175	$^\circ C$
Storage Temperature Range	$T_{stg}$	-65~175	$^\circ C$

## INDUSTRIAL APPLICATIONS

Unit in mm



Mounting Kit No. AC73  
Weight : 12.9g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=100V, I_E=0$	-	-	100	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=7V, I_C=0$	-	-	100	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	80	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5V, I_C=1A$	60	-	200	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=15A$	10	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=15A, I_B=3A$	-	0.6	1.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-	1.4	2.5	V
Transition Frequency	$f_T$	$V_{CE}=5V, I_C=1A$	-	1.5	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	400	-	pF
Switching Time	Turn-on Time	<p><math>I_{B1} = -I_{E2} = 0.5A</math> DUTY CYCLE <math>\leq 1\%</math></p>	-	2.5	-	$\mu s$
	Storage Time		-	6	-	
	Fall Time		-	1.5	-	

TOSHIBA CORPORATION



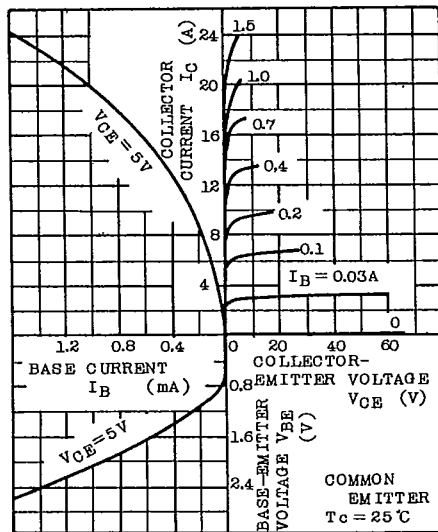
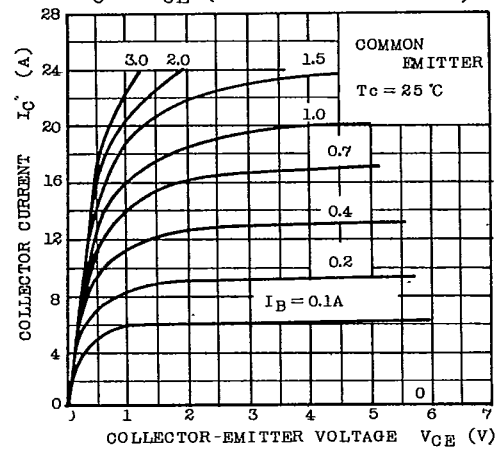
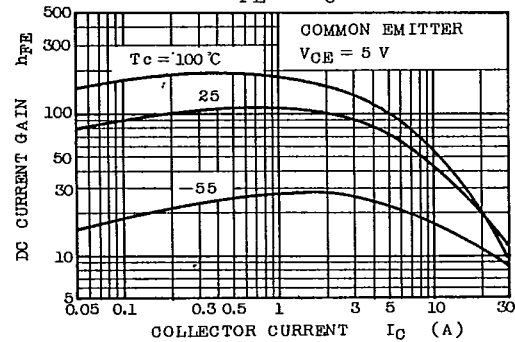
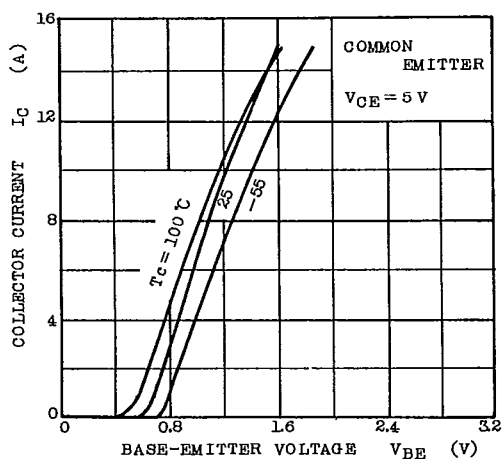
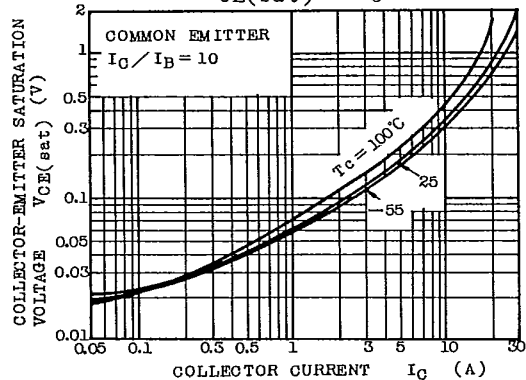
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## STATIC CHARACTERISTICS

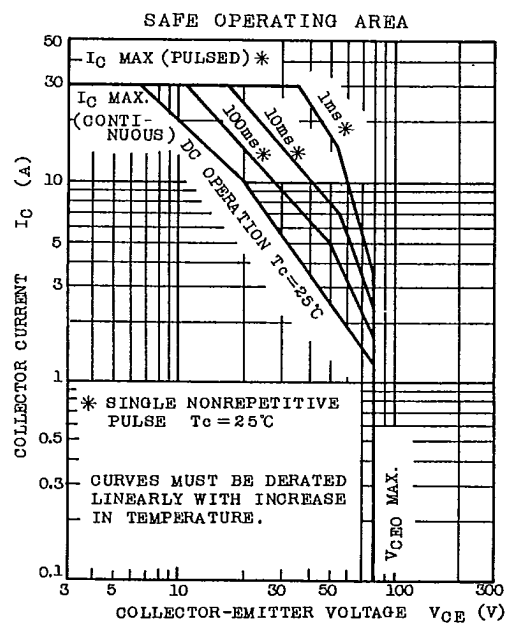
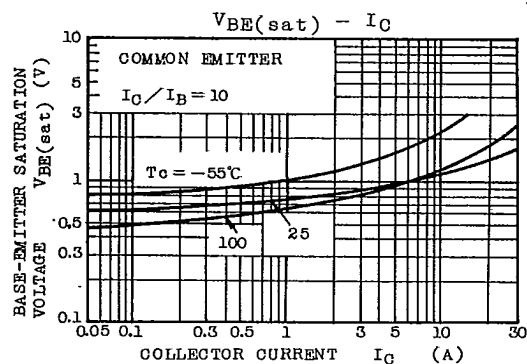
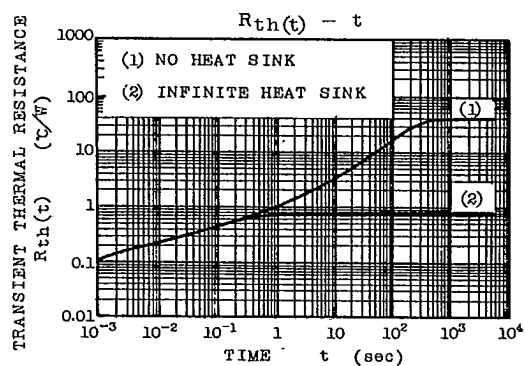
 $I_C - V_{CE}$  (LOW VOLTAGE REGION) $h_{FE} - I_C$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$ 

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