

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:

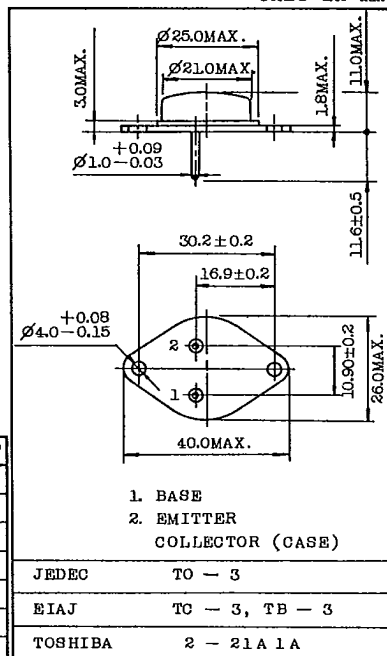
- High Power Dissipation : $P_C=200W$ ($T_c=25^\circ C$)
- High Collector Current : $I_C=30A$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	100	V
Collector-Emitter Voltage	V_{CE0}	80	V
Emitter-Base Voltage	V_{EB0}	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



JEDEC	TO - 3
EIAJ	TC - 3, TB - 3
TOSHIBA	2 - 21A 1A

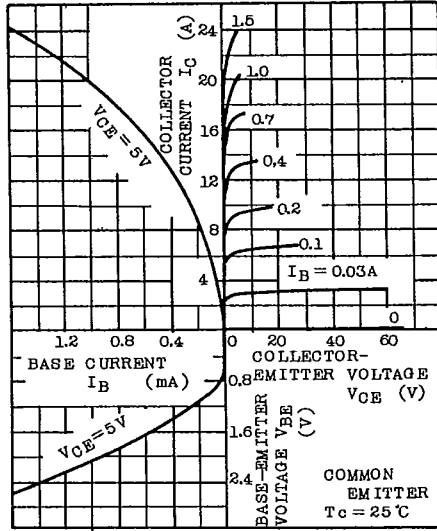
Mounting Kit No. AC73
Weight : 12.9g

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

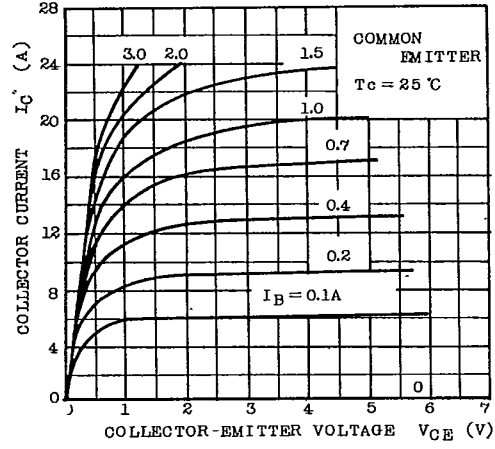
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	I_{CBO}	$V_{CB}=100V, I_E=0$	-	-	100	μA	
Emitter Cut-off Current	I_{EBO}	$V_{EB}=7V, I_C=0$	-	-	100	μA	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	80	-	-	V	
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5V, I_C=1A$	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		-	2.5	-	μs	
	Storage Time		$I_{B1} = -I_{B2} = 0.5A$	-	6		-
	Fall Time		$DUTY\ CYCLE \leq 1\%$	-	1.5		-

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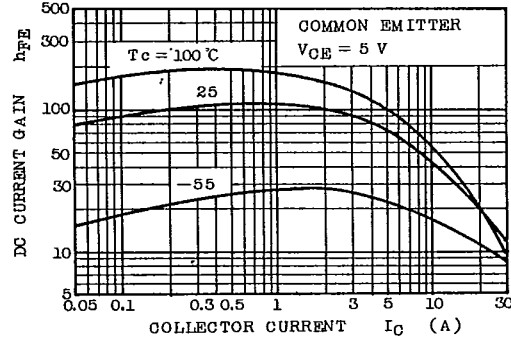
STATIC CHARACTERISTICS



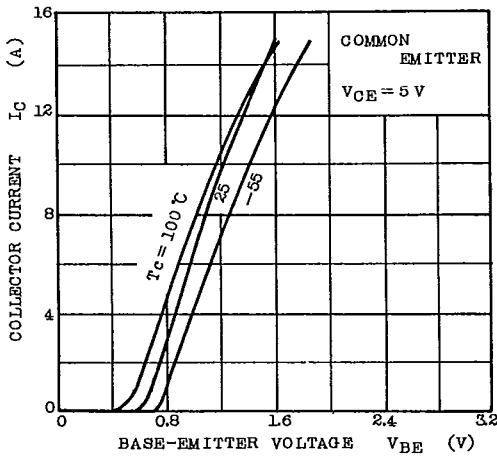
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



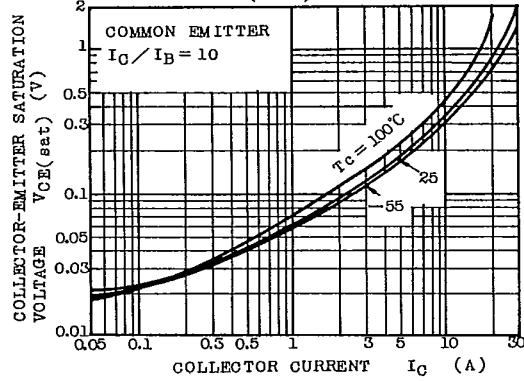
$h_{FE} - I_C$



$I_C - V_{BE}$



$V_{CE(sat)} - I_C$



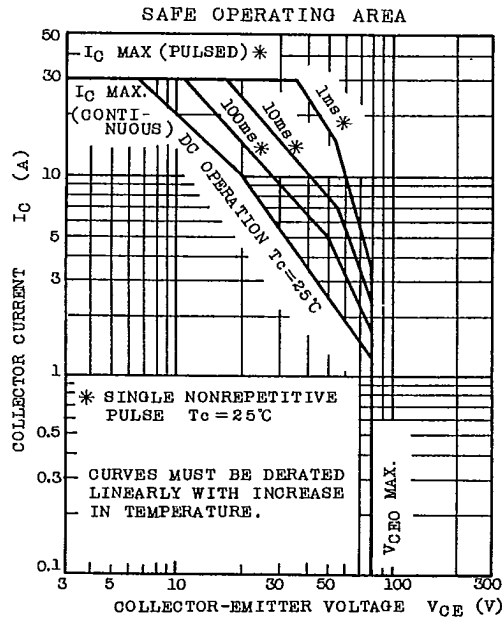
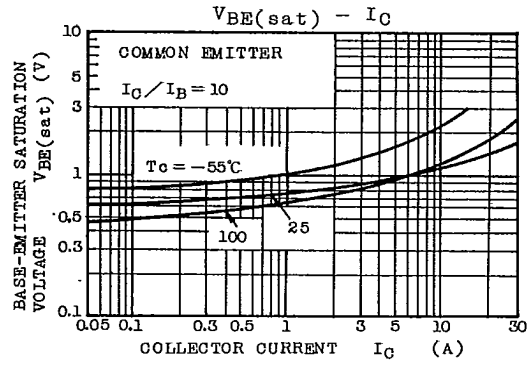
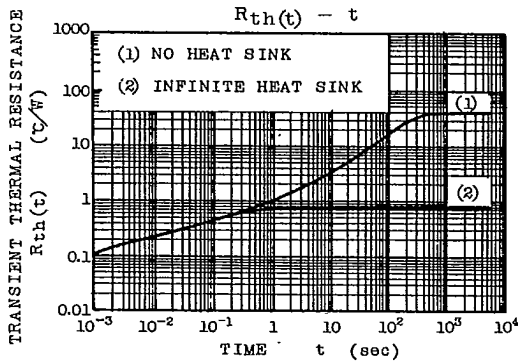
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