

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07855 D T-33-11

2SD1069

SILICON NPN DOUBLE DIFFUSED TYPE (PCT PROCESS)

TV HORIZONTAL DEFLECTION OUTPUT APPLICATIONS.
HIGH VOLTAGE SWITCHING APPLICATIONS.

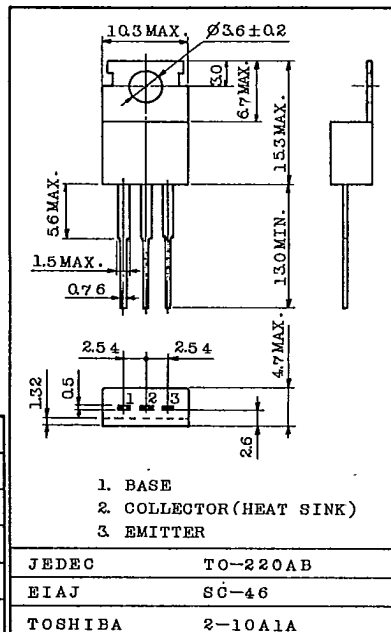
FEATURES:

- . Built in Damper Type.
- . High Collector Current Capability.
- . High Collector Power Dissipation Capability.

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	300	V
Collector-Emitter Voltage	V _{CE0}	150	V
Emitter-Base Voltage	V _{EB0}	6	V
Collector Current	I _C	7	A
Collector Current (Peak)	I _{CP}	15	A
Base Current	I _{BM}	2	A
Collector Power Dissipation	P _C	T _a =25°C	1.75
		T _c =25°C	40
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C

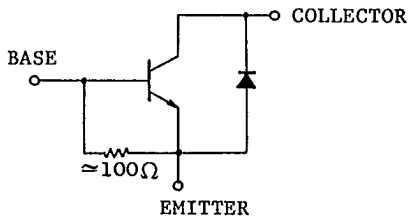
Unit in mm



Mounting kit No. AC75

Weight : 1.9 g

EQUIVALENT CIRCUIT



TOSHIBA CORPORATION

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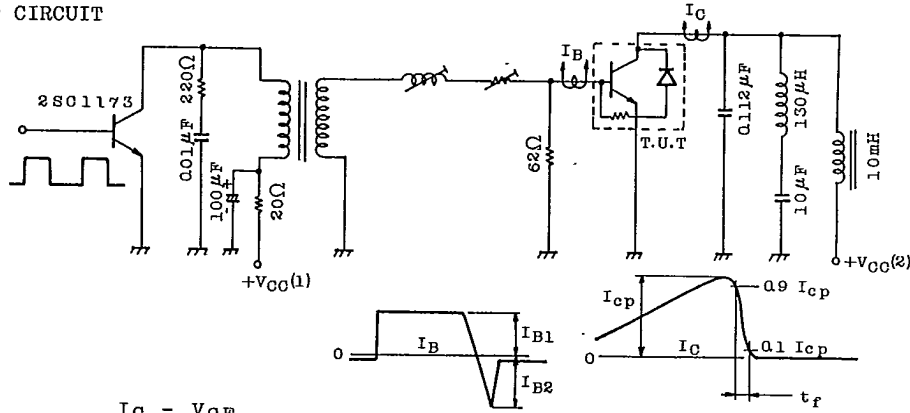
2SD1069ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CES}	$V_{CE}=250V, V_{BE}=0$	-	-	1.0	mA
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C=0.1A, L=50mH$	150	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	300	-	-	V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E=0.1A, I_C=0$	6	-	-	V
DC Forward Current Transfer Ratio	h_{FE}	$V_{CE}=1.5V, I_C=5A$	10	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=0.5A$	-	-	1.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5A, I_B=0.5A$	-	-	1.5	V
Damper Diode Forward Voltage	$-V_F$	$I_C=-6A$	-	-	1.8	V
Collector Current Fall Time	t_f	$I_{cp}=5A, I_{B1(end)}=0.5A$	-	-	1.0	μs
Transition Frequency	f_T	$V_{CE}=10V, I_C=0.2A$	-	18	-	MHz

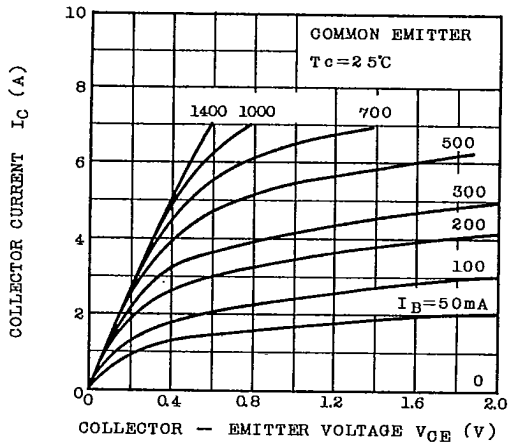
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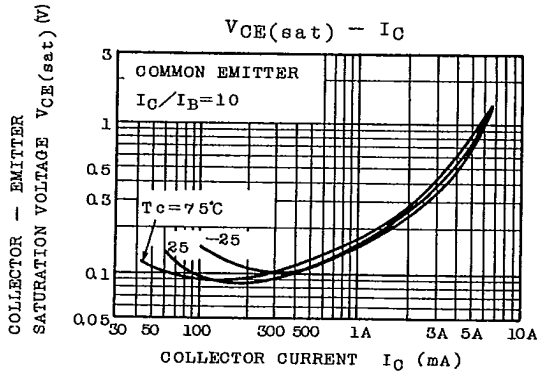
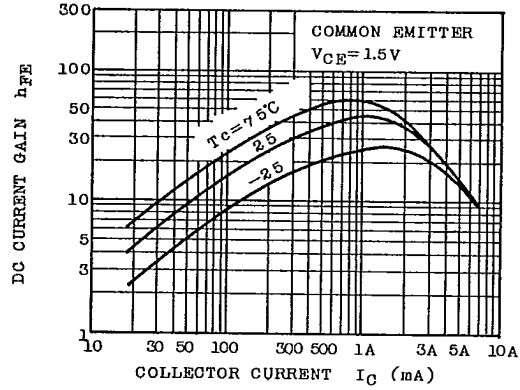
TEST CIRCUIT



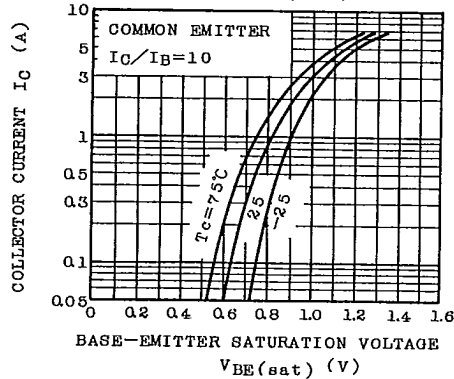
$I_C - V_{CE}$



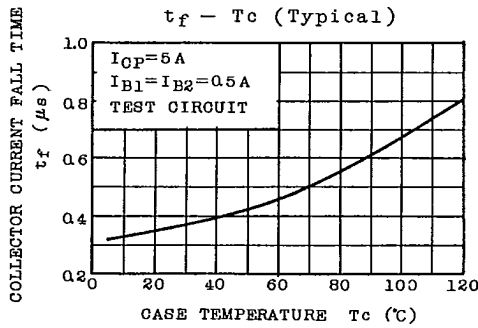
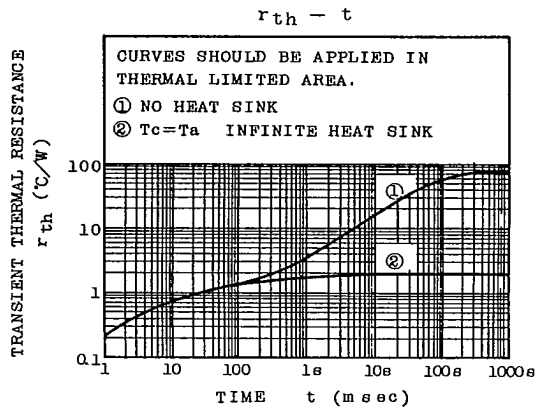
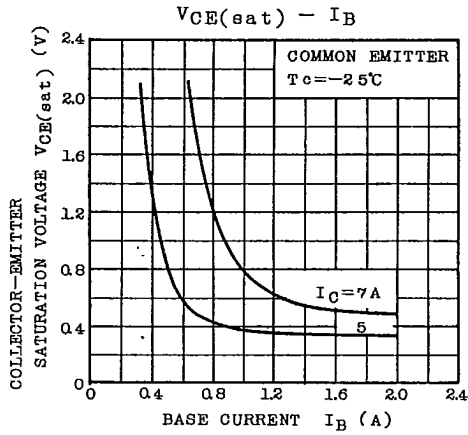
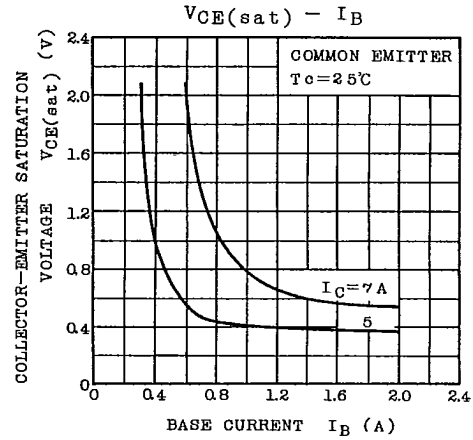
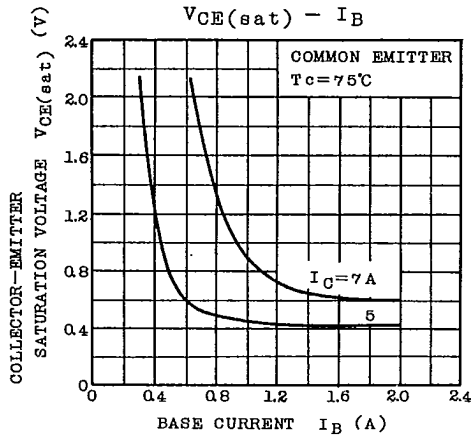
$h_{FE} - I_C$



$I_C - V_{BE(sat)}$



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