

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.

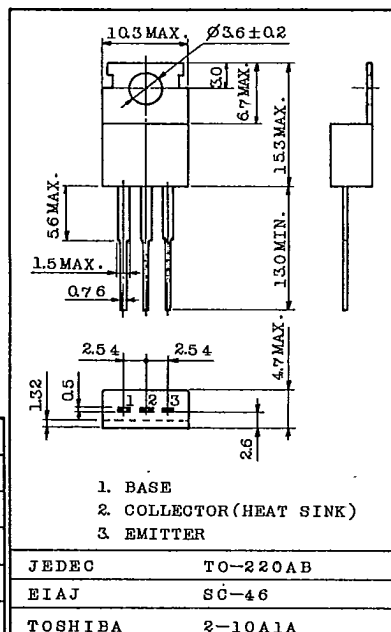
FEATURES:

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

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

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	$T_a=25^\circ\text{C}$	P_C 1.75	W
	$T_c=25^\circ\text{C}$	40	
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^\circ\text{C}$

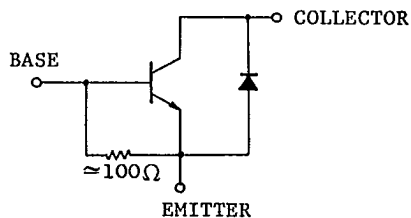
Unit in mm



Mounting kit No. AC75

Weight : 1.9 g

EQUIVALENT CIRCUIT



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CES}	$V_{CE}=250\text{V}, V_{BE}=0$	-	-	1.0	mA
Collector-Emitter Sustaining Voltage	$V_{CE0(SUS)}$	$I_C=0.1\text{A}, L=50\text{mH}$	150	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	300	-	-	V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E=0.1\text{A}, I_C=0$	6	-	-	V
DC Forward Current Transfer Ratio	h_{FE}	$V_{CE}=1.5\text{V}, I_C=5\text{A}$	10	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5\text{A}, I_B=0.5\text{A}$	-	-	1.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5\text{A}, I_B=0.5\text{A}$	-	-	1.5	V
Damper Diode Forward Voltage	$-V_F$	$I_C=-6\text{A}$	-	-	1.8	V
Collector Current Fall Time	t_f	$I_{cp}=5\text{A}, I_{B1}(\text{end})=0.5\text{A}$	-	-	1.0	μs
Transition Frequency	f_T	$V_{CE}=10\text{V}, I_C=0.2\text{A}$	-	18	-	MHz

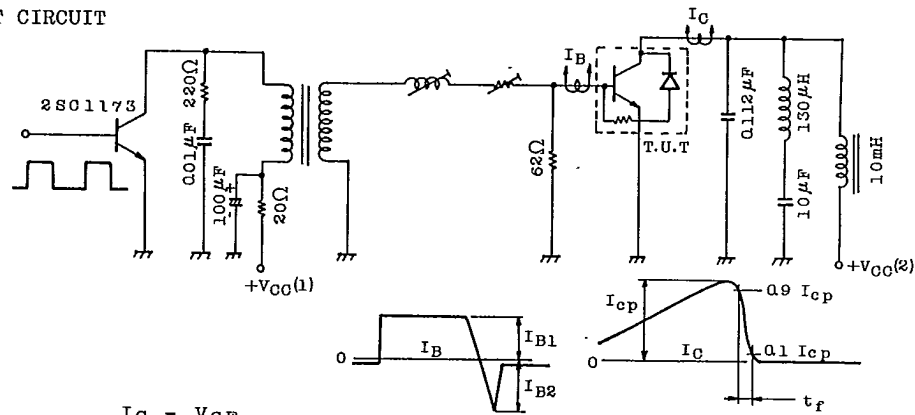
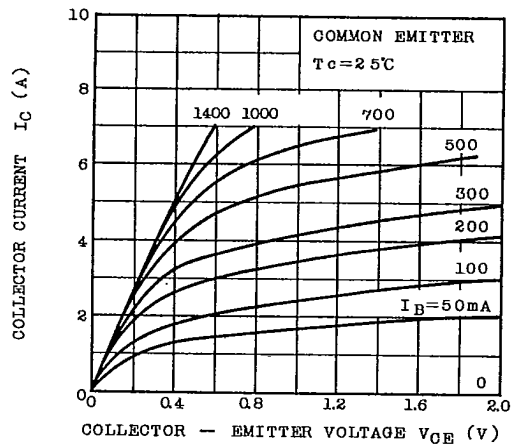
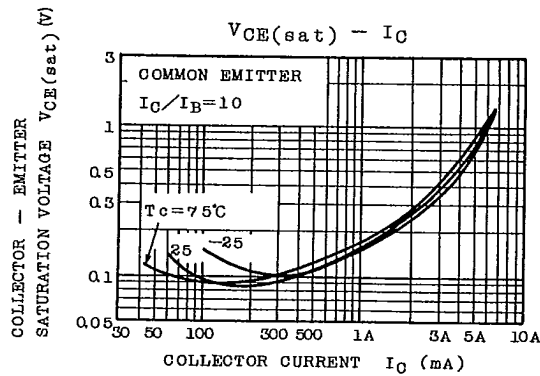
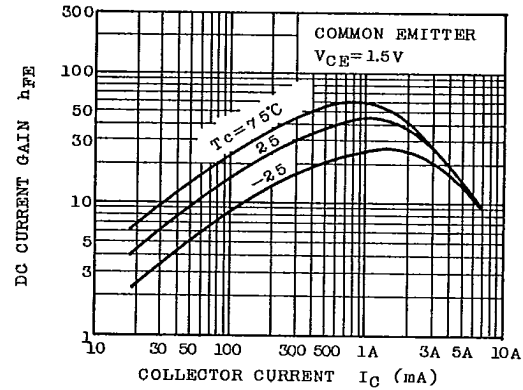
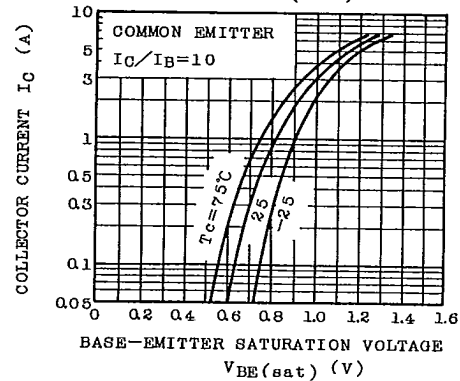
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TEST CIRCUIT

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

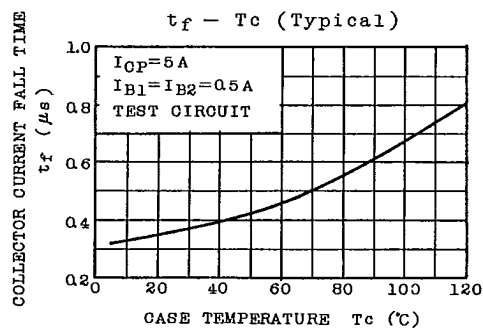
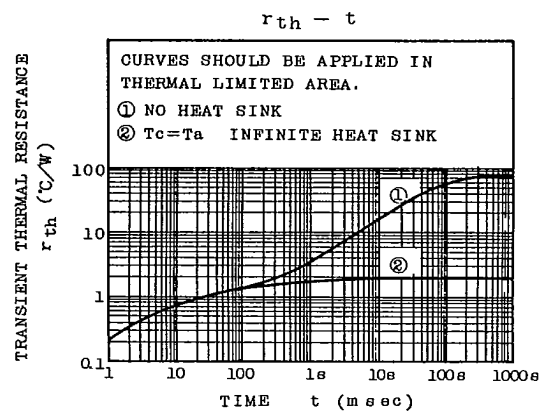
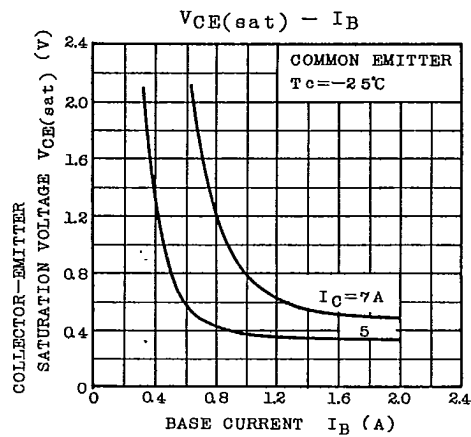
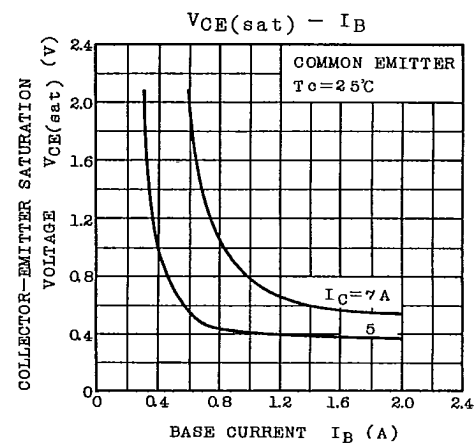
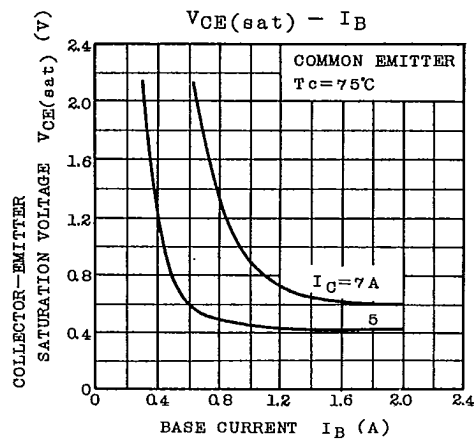
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