

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.

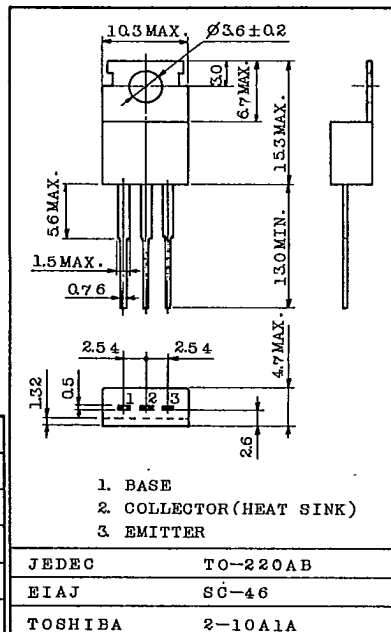
**FEATURES:**

- . 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 <sub>CB0</sub>	300	V
Collector-Emitter Voltage	V <sub>CE0</sub>	150	V
Emitter-Base Voltage	V <sub>EB0</sub>	6	V
Collector Current	I <sub>C</sub>	7	A
Collector Current (Peak)	I <sub>CP</sub>	15	A
Base Current	I <sub>BM</sub>	2	A
Collector Power Dissipation	P <sub>C</sub>	T <sub>a</sub> =25°C	1.75
		T <sub>c</sub> =25°C	40
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~150	°C

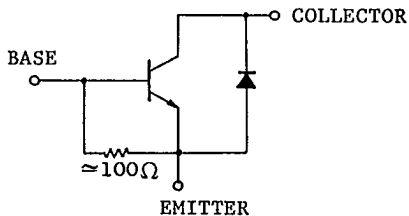
Unit in mm



Mounting kit No. AC75

Weight : 1.9 g

**EQUIVALENT CIRCUIT**



TOSHIBA CORPORATION

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56C 07856

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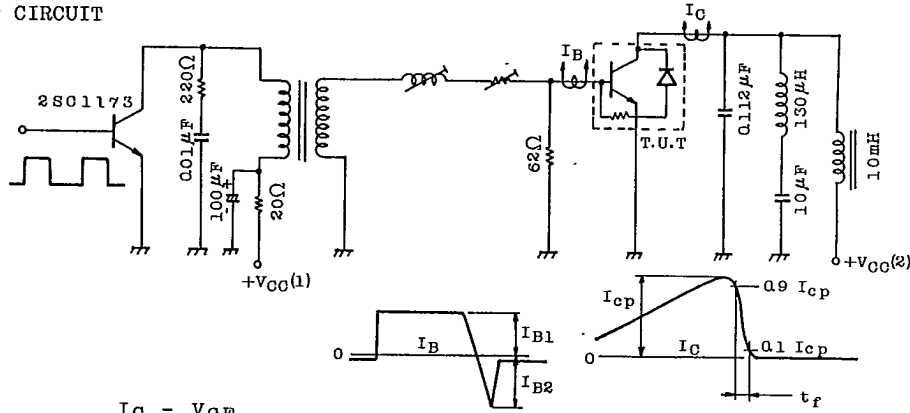
**2SD1069**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

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	$V_{CEO(SUS)}$	$I_C=0.1\text{A}, L=50\text{mH}$	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	$\mu\text{s}$
Transition Frequency	$f_T$	$V_{CE}=10\text{V}, I_C=0.2\text{A}$	-	18	-	MHz

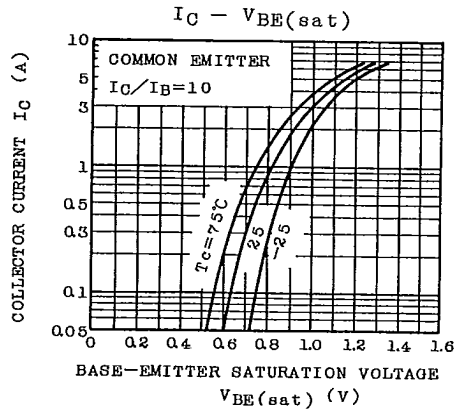
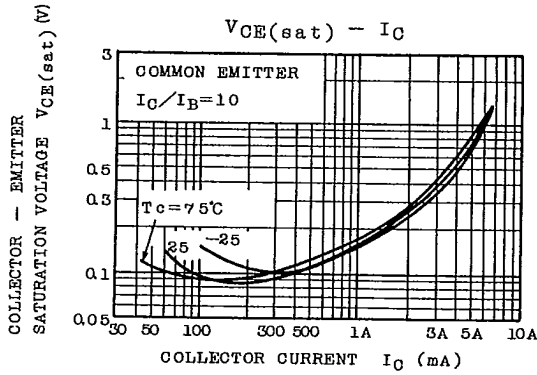
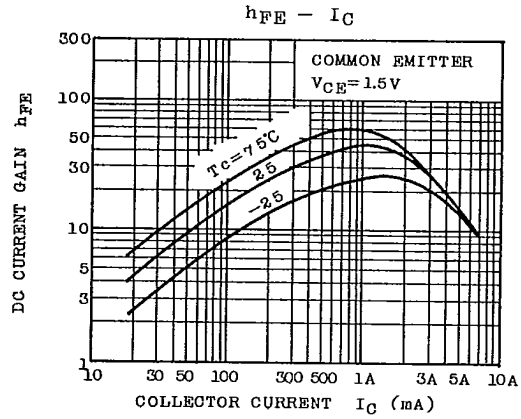
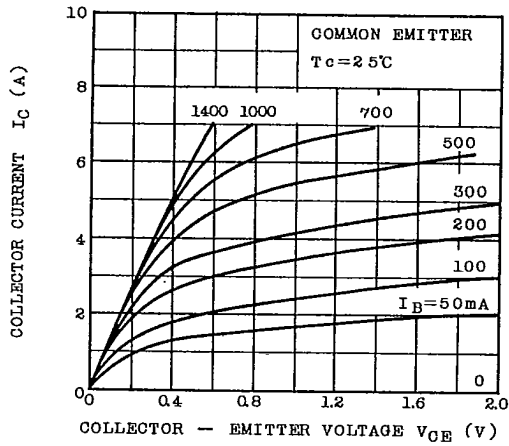
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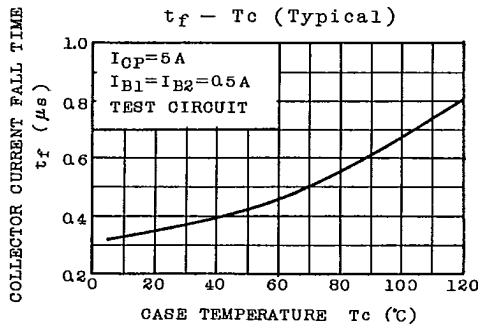
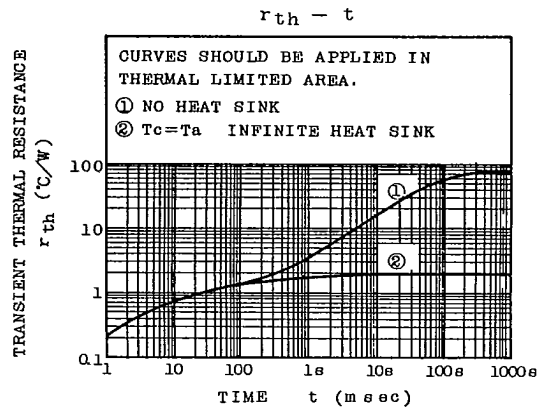
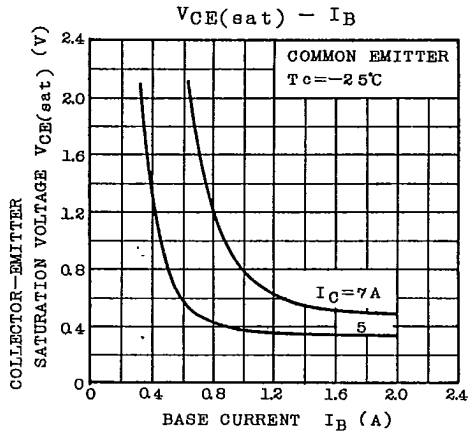
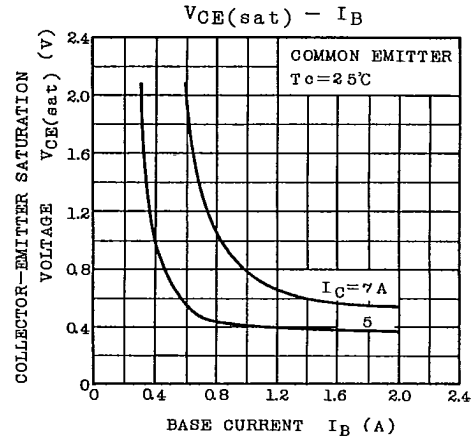
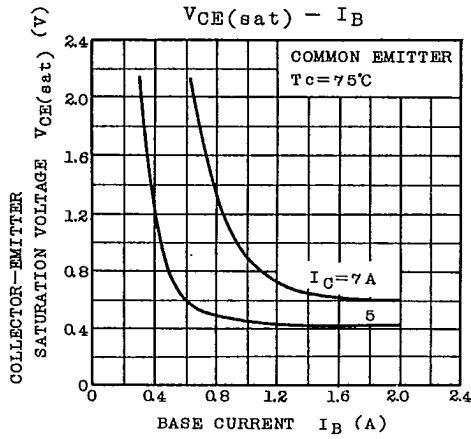
TEST CIRCUIT



$I_C - V_{CE}$



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