

2SD1069

SILICON NPN DOUBLE DIFFUSED TYPE (PCT PROCESS)

Unit in mm

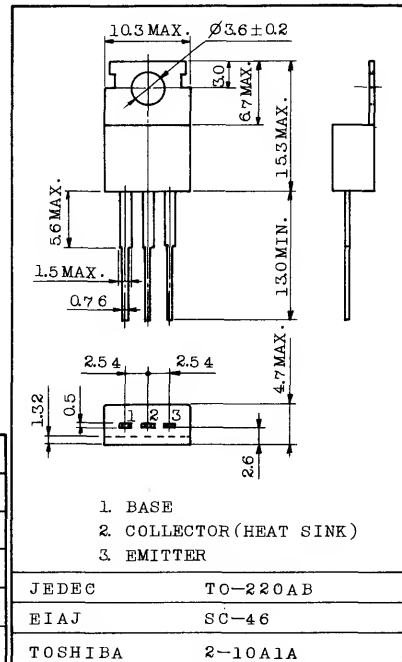
TV HORIZONTAL DEFLECTION OUTPUT APPLICATIONS.
HIGH VOLTAGE SWITCHING APPLICATIONS.

FEATURES:

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

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

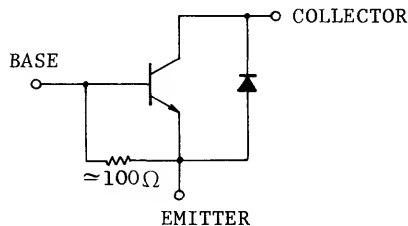
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CB0}	300	V
Collector-Emitter Voltage		V_{CE0}	150	V
Emitter-Base Voltage		V_{EB0}	6	V
Collector Current		I_C	7	A
Collector Current (Peak)		I_{CP}	15	A
Base Current		I_{BM}	2	A
Collector Power Dissipation	$T_a=25^{\circ}\text{C}$	P_C	1.75	W
	$T_c=25^{\circ}\text{C}$		40	
Junction Temperature		T_j	150	$^{\circ}\text{C}$
Storage Temperature Range		T_{stg}	-55~150	$^{\circ}\text{C}$



Mounting kit No. AC75

Weight : 1.9 g

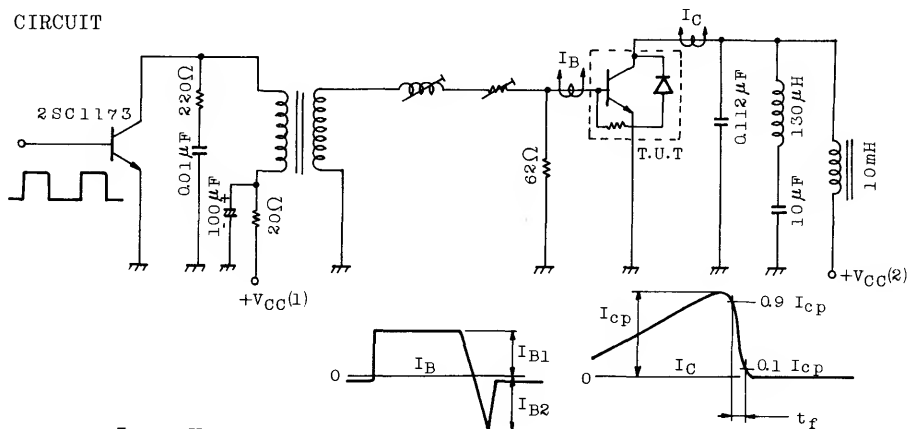
EQUIVALENT CIRCUIT



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	μs
Transition Frequency	f_T	$V_{CE}=10\text{V}, I_C=0.2\text{A}$	—	18	—	MHz

TEST CIRCUIT



$I_C - V_{CE}$

