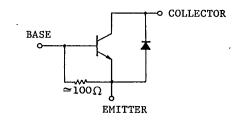
TOSHIBA {DISCRETE/OPTO}

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1			E/OPTO	, ,	56C 07855 DT~33			
<b>2SD1</b>	069	N DOUB	BLE DIFFUSED TYPE (PCT PROCESS)					
ΨΥ ΗΩΡΤΖΩΝΨΑΙ, ΒΕΡΙ.Ρ.	ርጥፐር ለበጥኮ	Unit in mm						
TV HORIZONTAL DEFLECTION OUTPUT APPLICATIONS. HIGH VOLTAGE SWITCHING APPLICATIONS.					10.3 MAX, Ø3.6±0.2			
FEATURES:								
. Built in Damper Type.								
. High Collector Current Capability.								
. High Collector Power Dissipation Capability.								
		<u>1.5 MAX.</u>						
		-			254 254			
MAXIMIM BATINGS (TR	=25 <sup>0</sup> C)							
MAXIMUM RATINGS (Ta CHARACTERIST		SYMBOL	RATING	UNIT				
CHARACTERIST	IC		RATING 300	UNIT V				
	IC tage	SYMBOL V <sub>CBO</sub> V <sub>CEO</sub>		+				
CHARACTERIST Collector-Base Vol	IC tage Voltage	V <sub>CBO</sub>	300	V	1. BASE 2. COLLECTOR (HEAT SINK) 3. EMITTER			
CHARACTERIST Collector-Base Vol Collector-Emitter	IC tage Voltage	V <sub>CBO</sub> V <sub>CEO</sub>	300 150	v v	1. BASE 2. COLLECTOR (HEAT SINK) 3. EMITTER JEDEC TO-220AB			
CHARACTERIST Collector-Base Vol Collector-Emitter Emitter-Base Volta	IC tage Voltage ge	V <sub>CBO</sub> V <sub>CEO</sub> V <sub>EBO</sub>	300 150 6	V V V	1. BASE 2. COLLECTOR (HEAT SINK) 3. EMITTER JEDEC TO-220AB EIAJ SC-46			
CHARACTERIST Collector-Base Vol Collector-Emitter Emitter-Base Volta Collector Current	IC tage Voltage ge	V <sub>CBO</sub> V <sub>CEO</sub> V <sub>EBO</sub> I <sub>C</sub>	300 150 6 7	V V V A	Normalization     Normalization       Normalization     Normalization       1. BASE     Normalization       2. COLLECTOR (HEAT SINK)       3. EMITTER       JEDEC     TO-220AB       EIAJ     SC-46       TOSHIBA     2-10A1A			
CHARACTERIST Collector-Base Vol Collector-Emitter Emitter-Base Volta Collector Current Collector Current Base Current Collector Power	IC tage Voltage ge	V <sub>CB0</sub> V <sub>CE0</sub> V <sub>EB0</sub> I <sub>C</sub> I <sub>C</sub> P I <sub>BM</sub>	300 150 6 7 15	V V V A A	$\frac{1}{3}$ $\frac{1}$			
CHARACTERIST Collector-Base Vol Collector-Emitter Emitter-Base Volta Collector Current Collector Current Base Current	IC tage Voltage ge (Peak)	V <sub>CEO</sub> V <sub>CEO</sub> V <sub>EBO</sub> I <sub>C</sub> I <sub>C</sub> P	300 150 6 7 15 2	V V V A A A	Normalized     Normalized       Normalized     Normalized       1. BASE     Normalized       2. COLLECTOR (HEAT SINK)     Normalized       3. EMITTER     JEDEC       JEDEC     TO-220AB       EIAJ     SC-46       TOSHIBA     2-10A1A			
CHARACTERIST Collector-Base Vol Collector-Emitter Emitter-Base Volta Collector Current Collector Current Base Current Collector Power	IC tage Voltage ge (Peak) Ta=25°C Tc=25°C	V <sub>CB0</sub> V <sub>CE0</sub> V <sub>EB0</sub> I <sub>C</sub> I <sub>C</sub> P I <sub>BM</sub>	300 150 6 7 15 2 1.75	V V V A A A	$\frac{1}{3}$ $\frac{1}$			

## EQUIVALENT CIRCUIT



-788-

## TOSHIBA {DISCRETE/OPTO}

9097250 TOSHIBA (DISCRETE/OPTO)

## 56C 07856 D T-33-11 2SD1069

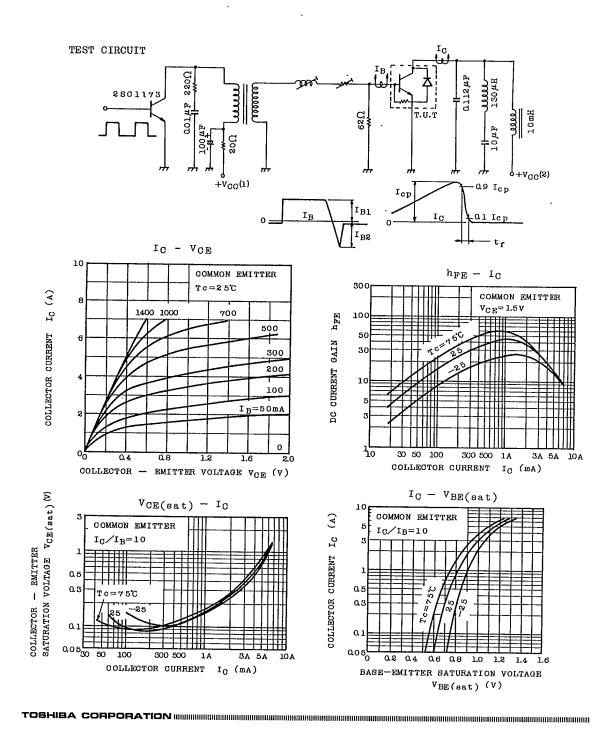
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I <sub>CES</sub>	v <sub>CE</sub> =250V, V <sub>BE</sub> =0	-		1.0	mA
Collector-Emitter Sustaining Voltage	V <sub>CEO</sub> (SUS)	I <sub>C</sub> =0.1A, L=50mH	150		-	v
Collector-Base Breakdown Voltage	V <sub>(BR)</sub> CBO	I <sub>C</sub> =1mA, I <sub>E</sub> =0	300	-	_	v
Emitter-Base Breakdown Voltage	V <sub>EB0</sub>	I <sub>E</sub> =0.1A, I <sub>C</sub> =0	6	-	-	v
DC Forward Current Transfer Ratio	h <sub>FE</sub>	V <sub>CE</sub> =1.5V, I <sub>C</sub> =5A	10	-	-	
Collector-Emitter Saturation Voltage	$v_{CE(sat)}$	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A	-	-	1.5	v
Base-Emitter . Saturation Voltage .	$v_{BE(sat)}$	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A	-	-	1.5	v
Damper Diode Forward Voltage	-VF	I <sub>C</sub> =-6A	-	-	1.8	v
Collector Current. Fall Time	tf	I <sub>cp</sub> =5A, I <sub>B1(end)</sub> =0.5A	-		1.0	μs
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =0.2A	-	18	-	MHz

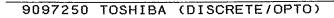
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9097250 TOSHIBA (DISCRETE/OPTO) 56C 07857 D 7-33-11 2SD1069

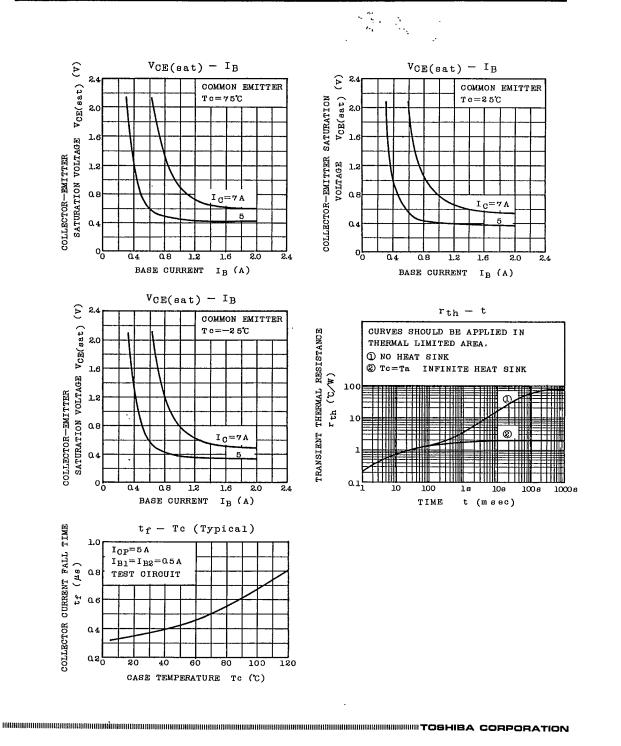


-790-









-791-

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