

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07808 DT-33-11

SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SD841

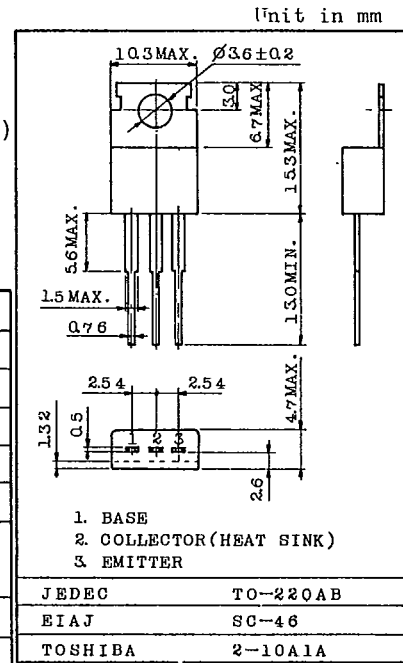
HIGH VOLTAGE SWITCHING APPLICATIONS.

FEATURES:

- High Voltage : $V_{CB0}=800V$
- Low $V_{CE(sat)}$: $V_{CE(sat)}=1.0V(\text{Max.}) (I_C=0.5A, I_B=0.05A)$
- High Speed Switching : $t_f=1.0\mu s (\text{Max.})$
- Glass Passivated Collector-Base Junction.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	V_{CB0}	800	V	
Collector-Emitter Voltage	V_{CE0}	400	V	
Emitter-Base Voltage	V_{EB0}	5	V	
Collector Current	I_C	3	A	
Base Current	I_B	1.5	A	
Collector Power Dissipation	P_C	$T_a=25^\circ C$	1.5	W
		$T_c=25^\circ C$	40	
Junction Temperature	T_j	150	$^\circ C$	
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$	



Weight : 1.9g
Mounting kit No. AC75

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=800V, I_E=0$	-	-	1	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	1	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=10mA$	8	-	-	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=0.5A$	10	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=0.5A, I_B=0.05A$	-	-	1.0	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=0.5A, I_B=0.05A$	-	-	1.5	V
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	75	-	pF
Transition Frequency	f_T	$V_{CE}=10V, I_E=-0.1A$	-	4	-	MHz
Fall Time	t_f	<p>$I_C=0.5A, I_{B1}=-I_{B2}=0.05A$</p>	-	-	1.0	μs

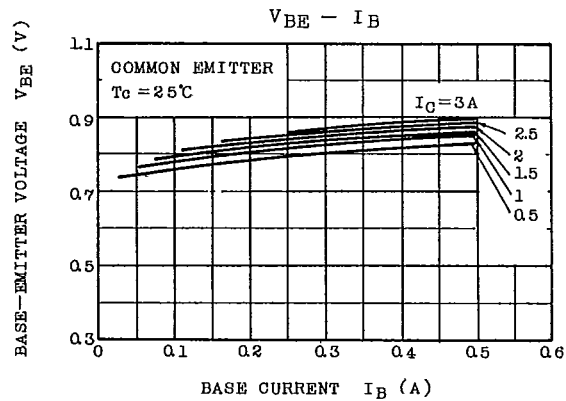
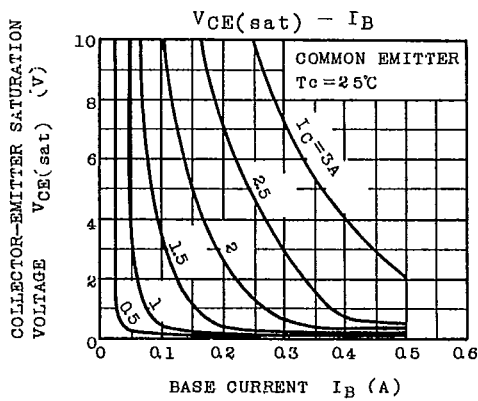
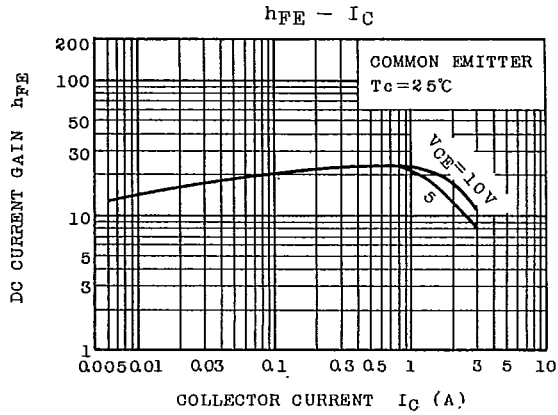
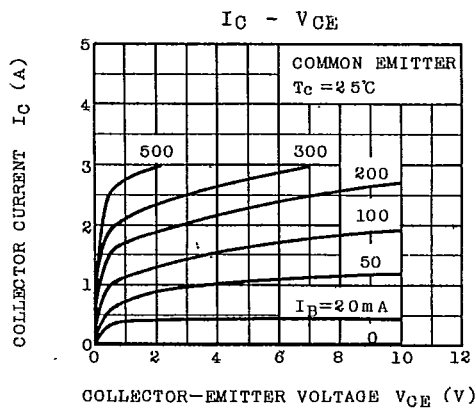
TOSHIBA CORPORATION

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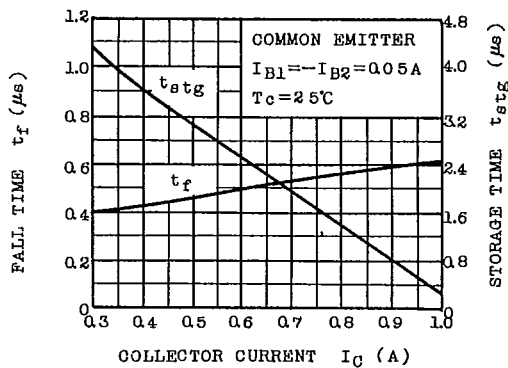
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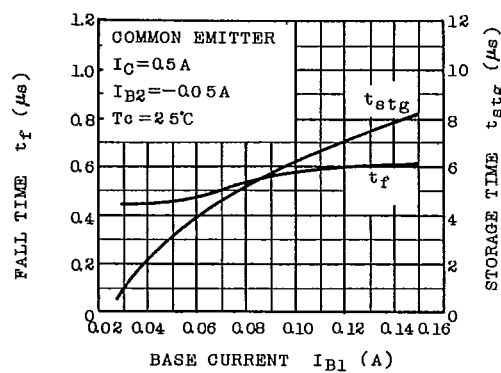
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SWITCHING CHARACTERISTICS



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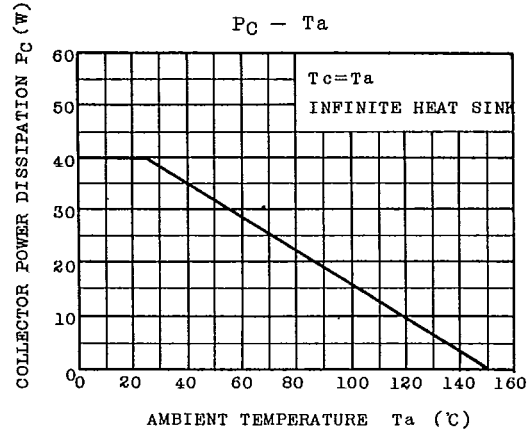
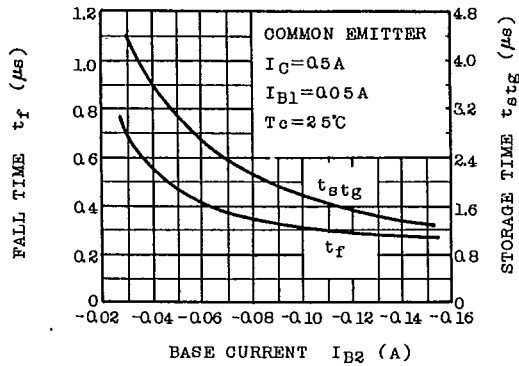


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SWITCHING CHARACTERISTICS



SAFE OPERATING AREA

