

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SC2552

SWITCHING REGULATOR AND HIGH VOLTAGE SWITCHING APPLICATIONS.

HIGH SPEED DC-DC CONVERTER APPLICATIONS.

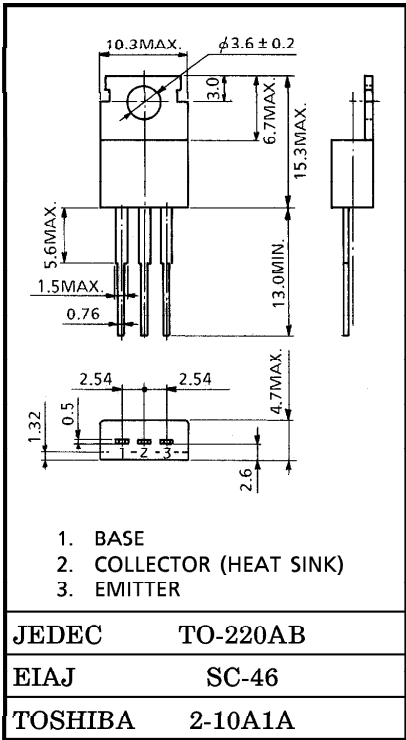
- Excellent Switching Times
: $t_r=1.0\mu s$ (Max.) $t_f=1.0\mu s$ (Max.) at $I_C=0.8A$
- High Collector Breakdown Voltage : $V_{CEO}=400V$

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	500	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current		I_C	2	A
Base Current		I_B	0.5	A
Collector Power Dissipation	Ta = 25°C	P_C	1.5	W
	Tc = 25°C		20	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

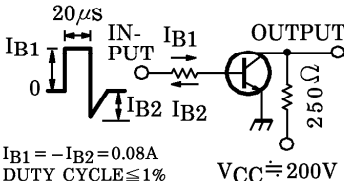
INDUSTRIAL APPLICATIONS

Unit in mm



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

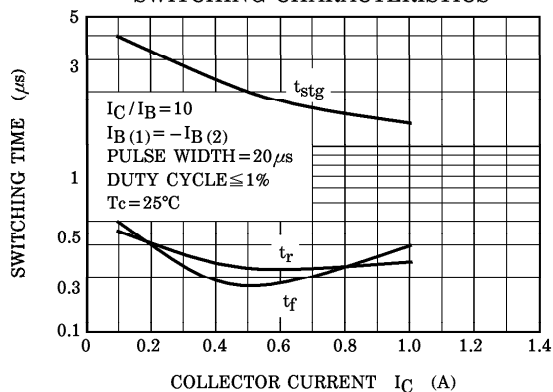
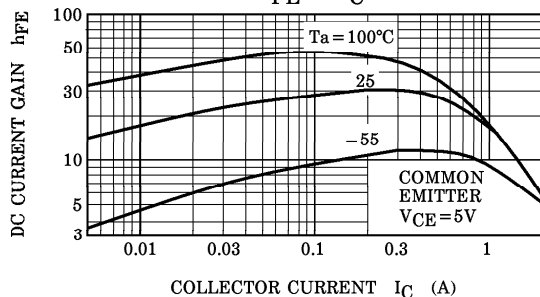
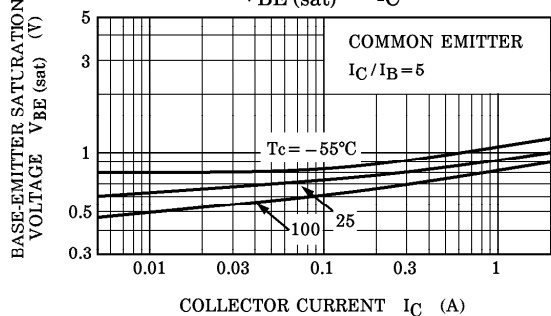
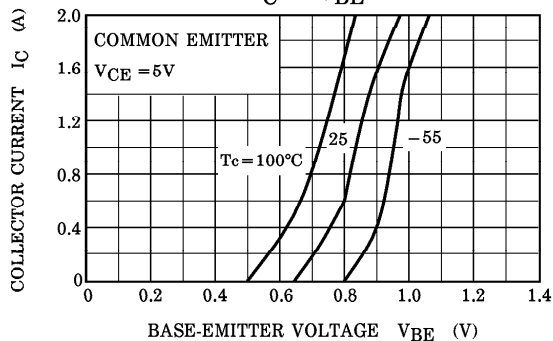
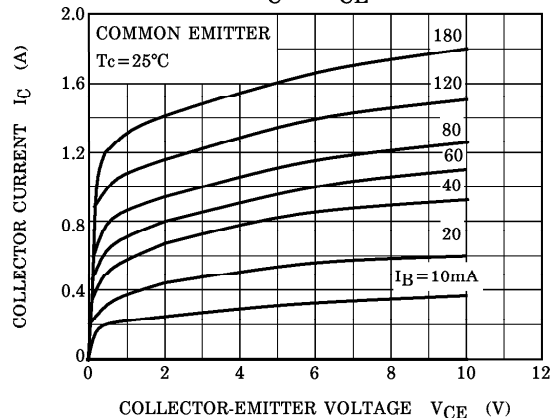
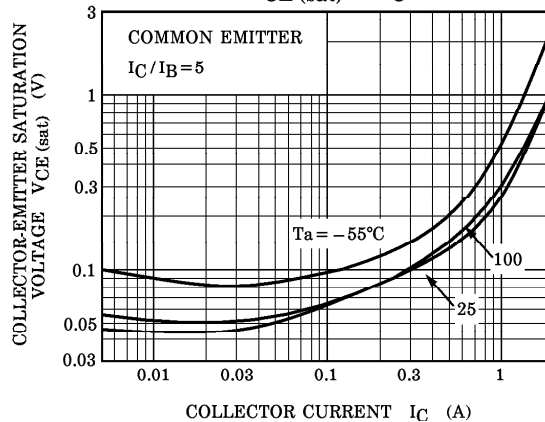
Weight : 1.9g
Mounting kit No. AC75

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=400V, I_E=0$	—	—	100	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=7V, I_C=0$	—	—	1	mA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	500	—	—	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400	—	—	V
DC Current Gain		$h_{FE}(1)$	$V_{CE}=5V, I_C=0.1A$	20	—	—	
		$h_{FE}(2)$	$V_{CE}=5V, I_C=1A$	8	—	—	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C=1A, I_B=0.2A$	—	—	1.0	V
	Base-Emitter	$V_{BE(sat)}$	$I_C=1A, I_B=0.2A$	—	—	1.5	
Switching Time	Turn-on Time	t_r		—	—	1.0	μs
	Storage Time	t_{stg}		—	—	2.5	
	Fall Time	t_f		—	—	1.0	

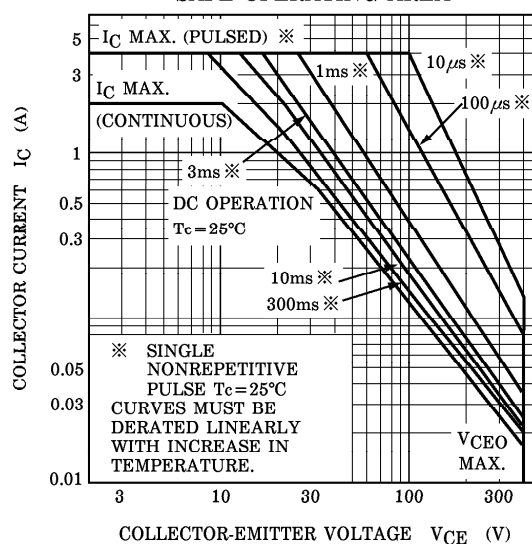
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SWITCHING CHARACTERISTICS

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

SAFE OPERATING AREA



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