TOSHIBA

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2 S C 5 5 8 9

HORIZONTAL DEFLECTION OUTPUT FOR SUPER HIGH RESOLUTION

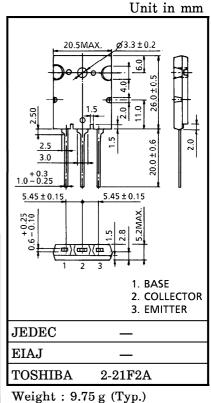
DISPLAY, COLOR TV

HIGH SPEED SWITCHING APPLICATIONS

- High Voltage $: V_{CBO} = 1500 V$
- Low Saturation Voltage : $V_{CE (sat)} = 3 V (Max.)$
- High Speed $: t_{f(2)} = 0.1 \ \mu s$ (Typ.)

MAXIMUM RATINGS (Ta = 25° C)

CHARACTERI	SYMBOL	RATING	UNIT		
Collector-Base Voltage	VCBO	1500	V		
Collector-Emitter Volta	VCEO	750	V		
Emitter-Base Voltage	VEBO	5	V		
Collector Current	DC	IC	18	А	
	Pulse	I _{CP}	36		
Base Current	IB	9	Α		
Collector Power Dissipation ($Tc = 25^{\circ}C$)		PC	200	w	
Junction Temperature	Tj	150	°C		
Storage Temperature Range		T _{stg}	$-55 \sim 150$	°C	



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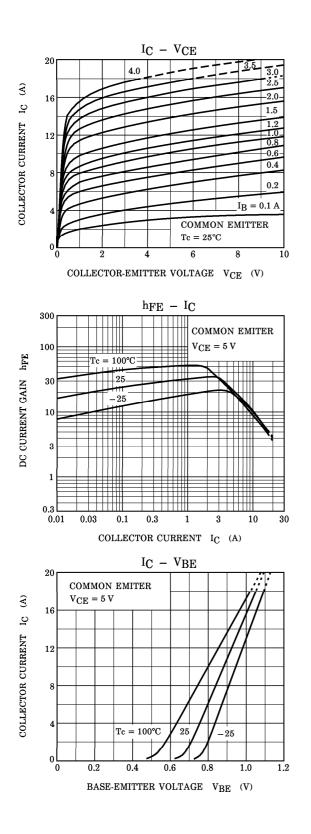
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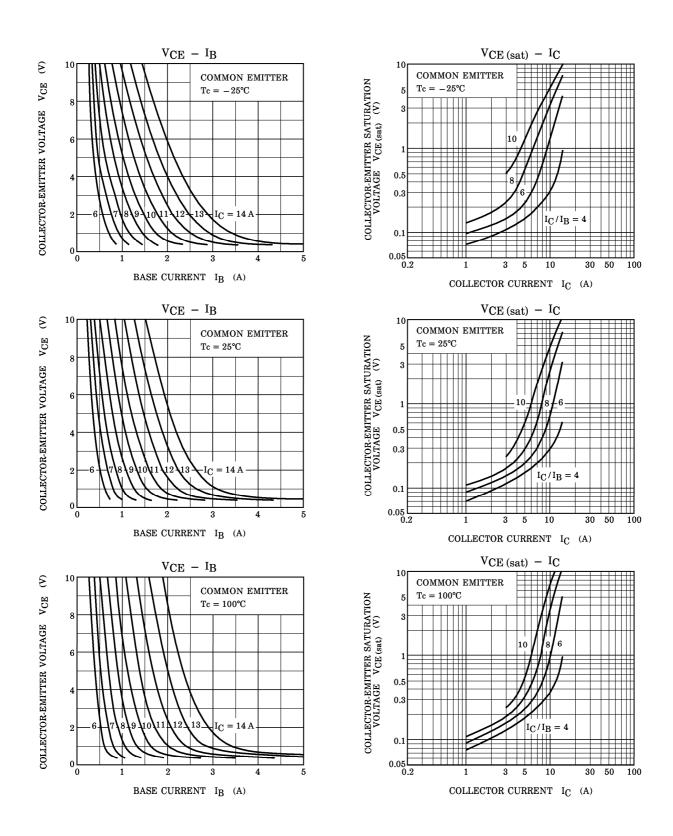
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CHARAC'	FERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-o	ff Current	ICBO	$V_{CB} = 1500 V, I_E = 0$	—	—	1	mA	
Emitter Cut-of	f Current	I _{EBO}	$V_{EB} = 5 V, I_{C} = 0$	—		100	μA	
Collector-Emitt Voltage	er Breakdown	V (BR) CEO	$I_{C} = 10 \text{ mA}, I_{B} = 0$	750	_	-	v	
DC Current Gain		hFE (1)	$V_{CE} = 5 V, I_{C} = 2 A$	22		48	_	
		hFE (2)	$V_{CE} = 5 V, I_{C} = 7 A$	9	—	18		
		hFE (3)	$V_{CE} = 5 V, I_{C} = 14 A$	5	_	8		
Collector-Emitt Voltage	er Saturation	V _{CE (sat)}	$I_{C} = 14 \text{ A}, I_{B} = 3.5 \text{ A}$	_	_	3	v	
Base-Emitter S Voltage	aturation	V _{BE (sat)}	$I_{C} = 14 \text{ A}, I_{B} = 3.5 \text{ A}$	_	1.0	1.5	v	
Transition Free	quency	f_{T}	$V_{CE} = 10 \text{ V}, \text{ I}_{C} = 0.1 \text{ A}$	_	2	_	MHz	
Collector Output Capacitance		C _{ob}	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$	—	240	_	pF	
Switching F	Storage Time	$t_{\rm stg(1)}$	$I_{CP} = 9 \text{ A}, I_{B1} \text{ (end)} = 1.3 \text{ A}$	_	2.7	3		
	Fall Time	^t f(1)	$f_{H} = 64 \text{ kHz}$	_	0.2	0.3	$\mu {f s}$	
	Storage Time	$t_{stg}(2)$	$I_{CP} = 7.5 \text{ A}, I_{B1} \text{ (end)} = 1.1 \text{ A}$		1.8	2		
	Fall Time	^t f(2)	$f_{\rm H} = 100 \rm kHz$	_	0.1	0.15	μ s	

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

<u>TOSHIBA</u>





 $P_C - T_c$

75

100

125

150

175

INFINITE HEAT SINK

