Unit in mm

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2 S C 5 3 6 0

COLOR TV CHROMA OUTPUT APPLICATIONS

• High Voltage : V_{CEO}=300V

• Small Collector Output Capacitance : Cob=5.0pF (Typ.)

• High Transition Frequency : f_T=100MHz (Typ.)

MAXIMUM RATINGS (Tc = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT	
Collector-Base Voltage		v_{CBO}	300	V	
Collector-Emitter Voltage		v_{CEO}	300	V	
Emitter-Base Voltage		$v_{ m EBO}$	5	V	
Collector Current		$I_{\mathbf{C}}$	150	mA	
Base Current		IB	50	mA	
Collector Power	$Ta = 25^{\circ}C$	Da	2.0	w	
Dissipation	$Tc = 25^{\circ}C$	$^{\mathrm{P}\mathrm{C}}$	12.5] **	
Junction Temperature		T_{j}	150	°C	
Storage Temperature Range		$\mathrm{T_{stg}}$	-55~150	°C	

1. BASE 2. COLLECTOR 3. EMITTER JEDEC JETA SC-67

2-10R1A

Weight: 1.7g (Typ.)

TOSHIBA

ELECTRICAL CHARACTERISTICS (Tc = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	ICBO	$V_{CB} = 240V, I_{E} = 0$	_	_	1.0	μ A
Emitter Cut-off Current	$I_{ m EBO}$	$V_{EB}=5V, I_C=0$	_	_	1.0	μ A
Collector-Emitter Breakdown Voltage	V (BR) CEO	$I_C=5mA$, $I_B=0$	300	_	_	V
DC Current Gain	$_{ m h_{FE}}$	$V_{CE} = 10V, I_C = 50mA$	40	_	170	
Collector-Emitter Saturation Voltage	V _{CE} (sat)	$I_{\rm C} = 100 {\rm mA}, \ I_{\rm B} = 20 {\rm mA}$	_	_	1.0	V
Base-Emitter Saturation Voltage	V _{BE} (sat)	$I_{\rm C} = 100 {\rm mA}, \ I_{\rm B} = 20 {\rm mA}$	_	_	1.2	V
Transition Frequency	$ m f_{T}$	$V_{CE} = 10V, I_{C} = 30mA$	40	100		MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 50V, I_E = 0, f = 1MHz$	_	5.0	6.5	pF

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