

TOSHIBA

2SC5550

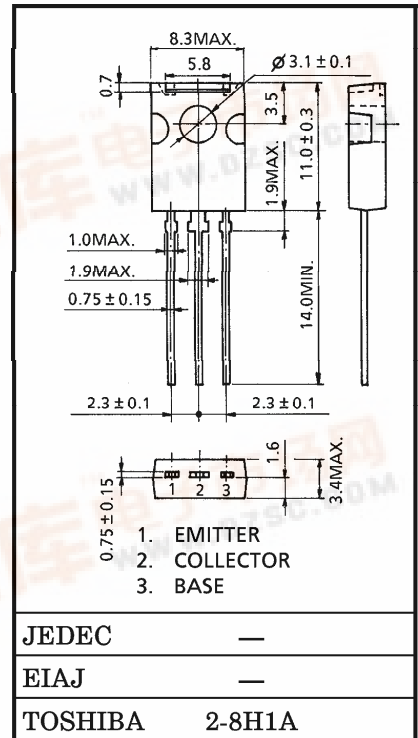
TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE

2SC5550

HIGH SPEED SWITCHING APPLICATION FOR INVERTER LIGHTING SYSTEM

Unit in mm

- Suitable for R_{CC} Circuit. (Guaranteed small current h_{FE})
: $h_{FE} = 13$ (Min.) ($I_C = 1mA$)
- High Speed : $t_r = 0.5\mu s$ (Max.), $t_f = 0.3\mu s$ (Max.) ($I_C = 0.24A$)
- High Voltage : $V_{CEO} = 400V$



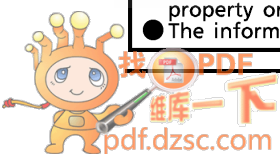
MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	400	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	1	A
	Pulse	I_{CP}	2	
Base Current		I_B	0.5	A
Collector Power Dissipation	$T_a = 25^\circ C$	PC	1.5	W
	$T_c = 25^\circ C$		10	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$

Weight : 0.82g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = 320V, I_E = 0$	—	—	100	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = 7V, I_C = 0$	—	—	100	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C = 1mA, I_B = 0$	400	—	—	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	400	—	—	V
DC Current Gain		$h_{FE}(1)$	$V_{CE} = 5V, I_C = 1mA$	13	—	—	
		$h_{FE}(2)$	$V_{CE} = 5V, I_C = 0.04A$	20	—	65	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = 0.2A, I_B = 25mA$	—	—	1.0	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = 0.2A, I_B = 25mA$	—	—	1.3	V
Switching Time	Rise Time	t_r	<p> $20\mu s$ $V_{CC} = 200V$ I_{B1} I_{B2} I_C 833Ω INPUT OUTPUT $I_{B1} = 0.03A, I_{B2} = -0.06A$ DUTY CYCLE $\leq 1\%$ </p>	—	—	0.5	μs
	Storage Time	t_{stg}		—	—	5.0	
	Fall Time	t_f		—	—	0.3	

