

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE

2SA1802

STROBE FLASH APPLICATIONS
MEDIUM POWER AMPLIFIER APPLICATIONS

- Excellent h_{FE} Linearity
: $h_{FE}(1) = 200 \sim 600$ ($V_{CE} = -2V, I_C = -0.5A$)
: $h_{FE}(2) = 140$ (Min.) ($V_{CE} = -2V, I_C = -3A$)
- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.5V$ (Max.) ($I_C = -3A, I_B = -60mA$)
- Surface Mount Package : Lead Bending Type 2-7B2A
- Complementary to 2SC4681

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

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	V_{CBO}	-30	V	
Collector-Emitter Voltage	V_{CES}	-30	V	
	V_{CEO}	-10		
Emitter-Base Voltage	V_{EBO}	-6	V	
Collector Current	DC I_C	-3	A	
	Pulsed (Note 1) I_{CP}	-6		
Base Current	I_B	-0.5	A	
Collector Power Dissipation	P_C	$T_a = 25^\circ C$	1.0	W
		$T_c = 25^\circ C$	10	
Junction Temperature	T_j	150	$^\circ C$	
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$	

(Note 1) : Pulse Test : Pulse Width = 10 ms (Max.)
Duty Cycle = 30% (Max.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -30V, I_E = 0$	—	—	-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -6V, I_C = 0$	—	—	-100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-10	—	—	V
DC Current Gain	$h_{FE}(1)$	$V_{CE} = -2V, I_C = -0.5A$	200	—	600	
	$h_{FE}(2)$	$V_{CE} = -2V, I_C = -3A$	140	200	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -60mA$	—	-0.25	-0.50	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -2V, I_C = -3A$	—	-0.86	-1.2	V
Transition Frequency	f_T	$V_{CE} = -2V, I_C = -0.5A$	—	180	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	50	—	pF

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Unit in mm

