

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE (PCT PROCESS)

2SB1018A

HIGH CURRENT SWITCHING APPLICATIONS

POWER AMPLIFIER APPLICATIONS

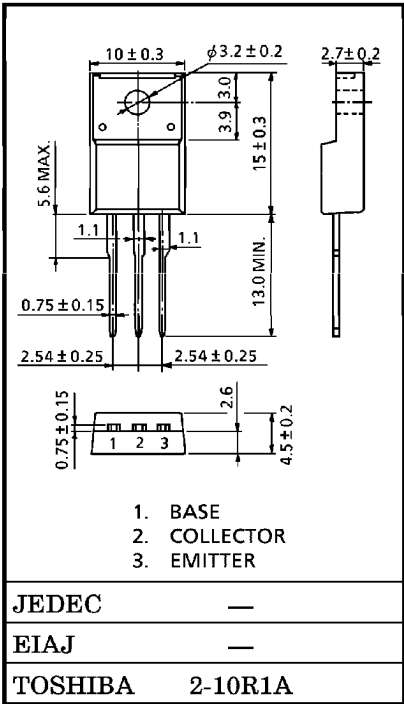
- High Collector Current : $I_C = -7A$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.5V$ (Max.) ($I_C = -4A$)
- Complementary to 2SD1411A

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-100	V
Collector-Emitter Voltage		V_{CEO}	-80	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-7	A
Base Current		I_B	-1	A
Collector Power Dissipation	Ta = 25°C	P_C	2.0	W
	Tc = 25°C		30	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

INDUSTRIAL APPLICATIONS

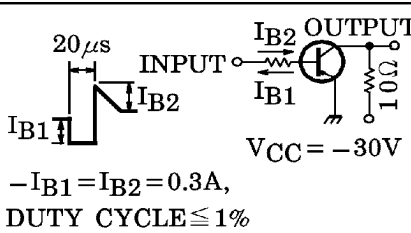
Unit in mm



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		ICBO	V _{CB} = -100V, I _E = 0	—	—	-5	μA
Emitter Cut-off Current		IEBO	V _{EB} = -5V, I _C = 0	—	—	-5	μA
Collector-Emitter Breakdown Voltage		V _(BR) CEO	I _C = -50mA, I _B = 0	-80	—	—	V
DC Current Gain		h _{FE} (1) (Note)	V _{CE} = -1V, I _C = -1A	70	—	240	
		h _{FE} (2)	V _{CE} = -1V, I _C = -4A	30	—	—	
Saturation Voltage	Collector-Emitter	V _{CE} (sat)	I _C = -4A, I _B = -0.4A	—	-0.3	-0.5	V
	Base-Emitter	V _{BE} (sat)	I _C = -4A, I _B = -0.4A	—	-0.9	-1.4	
Transition Frequency		f _T	V _{CE} = -4V, I _C = -1A	—	10	—	MHz
Collector Output Capacitance		C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	—	250	—	pF
Switching Time	Turn-on Time	t _{on}	 20μs INPUT IB2 IB1 OUTPUT 10Ω RL V_{CC} = -30V -IB1 = IB2 = 0.3A, DUTY CYCLE ≤ 1%	—	0.4	—	μs
	Storage Time	t _{stg}		—	2.5	—	
	Fall Time	t _f		—	0.5	—	

(Note) h_{FE} (1) Classification O : 70~140, Y : 120~240

