

2SC3308

SILICON NPNEPITAXIAL TYPE (PCT PROCESS)

HIGH CURRENT SWITCHING APPLICATIONS.

FEATURES:

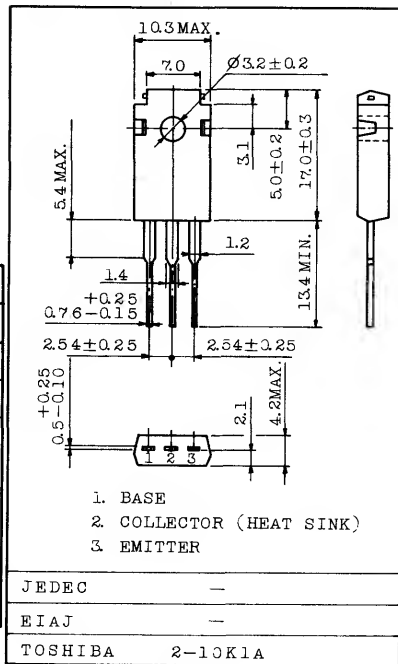
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 0.4V(\text{Max.})$ at $I_C = 3A$
- High Speed Switching Time : $t_{stg} = 1.0\mu s(\text{Typ.})$
- Complementary to 2SA1308.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	DC	I_C	A
	Pulse	I_{CP}	
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	30	V
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ C$

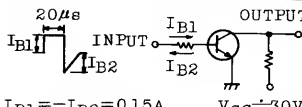
INDUSTRIAL APPLICATIONS

Unit in mm



Weight : 2.0g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 100V, I_E = 0$	-	-	1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 7V, I_C = 0$	-	-	1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	80	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = 1V, I_C = 1A$	70	-	240	
	$h_{FE(2)}$	$V_{CE} = 1V, I_C = 3A$	40	-	-	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$ $I_C = 3A, I_B = 0.15A$	-	0.2	0.4	V
	Base-Emitter	$V_{BE(sat)}$ $I_C = 3A, I_B = 0.15A$	-	0.9	1.2	
Transition Frequency	f_T	$V_{CE} = 4V, I_C = 1A$	-	120	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	80	-	pF
Switching Time	Turn-on Time	t_{on} 	-	0.2	-	μs
	Storage Time	t_{stg}	-	1.0	-	
	Fall Time	t_f $I_{B1} = -I_{B2} = 0.15A$ DUTY CYCLE $\leq 1\%$	-	0.1	-	

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

TOSHIBA CORPORATION

