

TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

# 2SC3515

HIGH VOLTAGE CONTROL APPLICATIONS

PLASMA DISPLAY, NIXIE TUBE DRIVER APPLICATIONS

CATHODE RAY TUBE BRIGHTNESS CONTROL APPLICATIONS

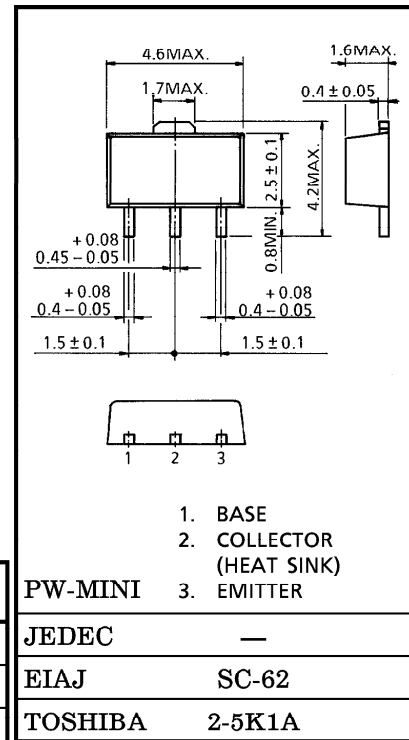
- High Voltage :  $V_{CBO}=300V, V_{CEO}=300V$
- Low Saturation Voltage :  $V_{CE(sat)}=0.5V$  (Max.)
- Small Collector Output Capacitance :  $C_{ob}=3pF$  (Typ.)
- Complementary to 2SA1384
- Small Flat Package
- $P_C=1\sim 2W$  (Mounted Ceramic Substrate)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	300	V
Collector-Emitter Voltage	$V_{CEO}$	300	V
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	100	mA
Base Current	$I_B$	20	mA
Collector Power Dissipation	$P_C$	500	mW
Collector Power Dissipation	$P_C$ (Note)	1000	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$

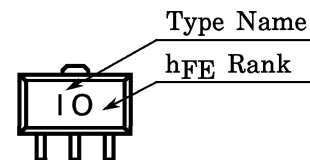
Note : Mounted on ceramic substrate ( $250mm^2 \times 0.8mm$ )

Unit in mm



Weight : 0.05g

Marking



961001EAA2

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## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 300V, I_E = 0$	—	—	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 6V, I_C = 0$	—	—	0.1	$\mu A$
Collector-Base Breakdown Voltage	$V_{(BR) CBO}$	$I_C = 0.1mA, I_E = 0$	300	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR) CEO}$	$I_C = 1mA, I_B = 0$	300	—	—	V
DC Current Gain	$h_{FE} (1)$ (Note)	$V_{CE} = 10V, I_C = 20mA$	30	—	150	
	$h_{FE} (2)$	$V_{CE} = 10V, I_C = 1mA$	20	—	—	
Collector-Emitter Saturation Voltage	$V_{CE} (sat)$	$I_C = 20mA, I_B = 2mA$	—	—	0.5	V
Base-Emitter Saturation Voltage	$V_{BE} (sat)$	$I_C = 20mA, I_B = 2mA$	—	—	1.0	V
Transition Frequency	$f_T$	$V_{CE} = 10V, I_C = 20mA$	50	80	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 20V, I_E = 0, f = 1MHz$	—	3	4	pF

Note :  $h_{FE} (1)$  Classification    R : 30~90,    O : 50~150

