

BU508, 508A



2022

NPN Triple Diffused Planar
Silicon Transistors

T-33-11

Horizontal Output Applications

Absolute Maximum Ratings at Ta=25°C

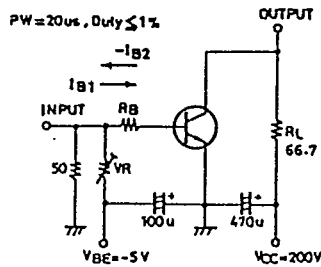
Parameter	Symbol	Value	unit
Collector to Base Voltage	V _{CB0}	1500	V
Collector to Emitter Voltage	V _{CE0}	800	V
Emitter to Base Voltage	V _{EB0}	6	V
Collector Current	I _C	5	A
Peak Collector Current	i _{op}	16	A
Collector Dissipation	P _C	50	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Tc=25°C

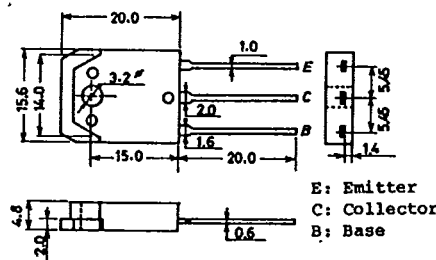
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	min	typ	max	unit
Collector Cutoff Current	I _{CES}	V _{CE} =1500V, V _{BE} =0			1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =6V, I _C =0			10	mA
C-E Saturation Voltage	V _{CE(sat)}	I _C =4.5A, I _B =2A			5	V
		BU508			1	V
		BU508A			1	V
B-E Saturation Voltage	V _{BE(sat)}	I _C =4.5A, I _B =2A			1.3	V
Gain Bandwidth Product	f _T	V _{CE} =5V, I _C =0.1A, f=5MHz		7		MHz
C-E Sustaining Voltage	V _{CEO(sus)}	I _C =100mA, L=25mH	800			V
Fall-Time	t _f	I _C =4A, I _{B1} =0.8A			0.4	us
		I _{B2} =-1.6A				
DC Current Gain	h _{FE}	V _{CE} =5V, I _C =4.5A	2.25			

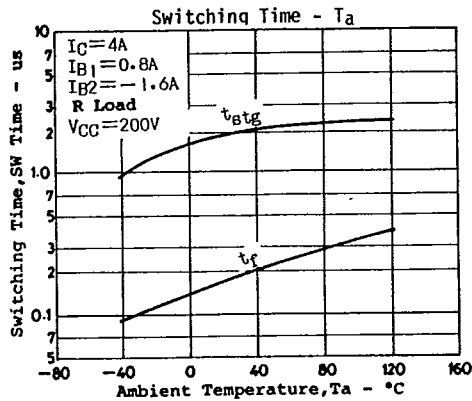
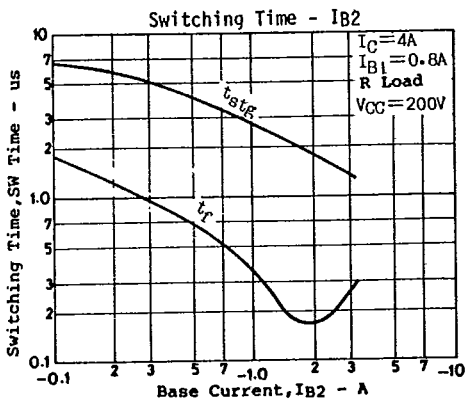
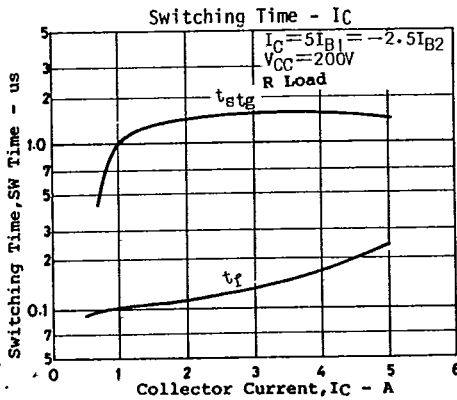
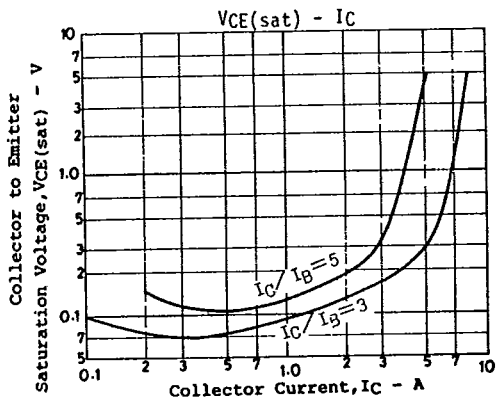
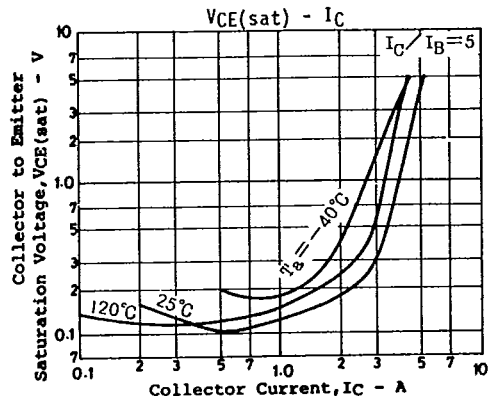
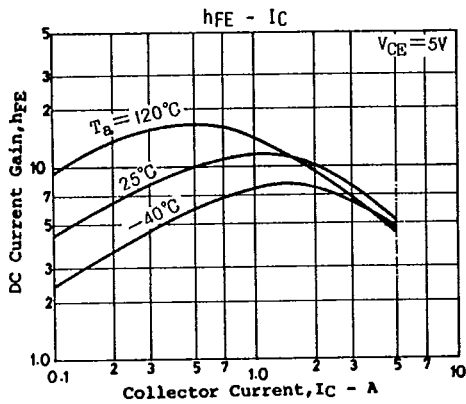
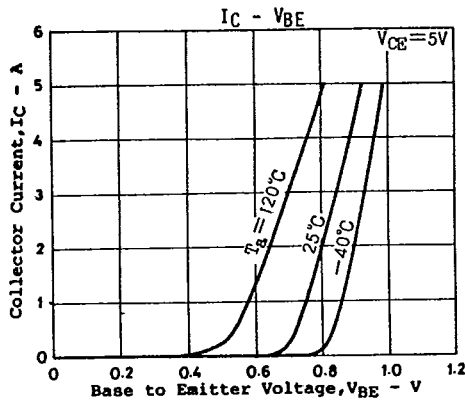
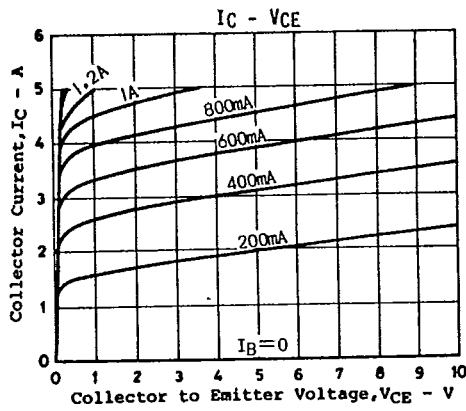
Switching Time Test Circuit



Case Outline 2022 (unit:mm)

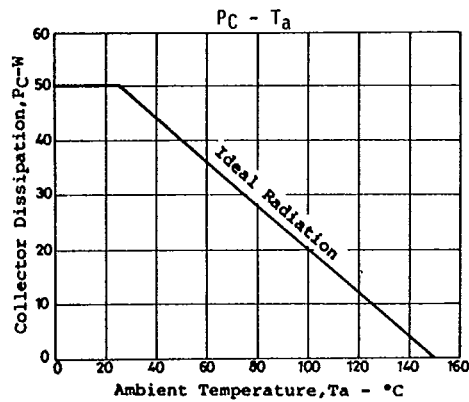
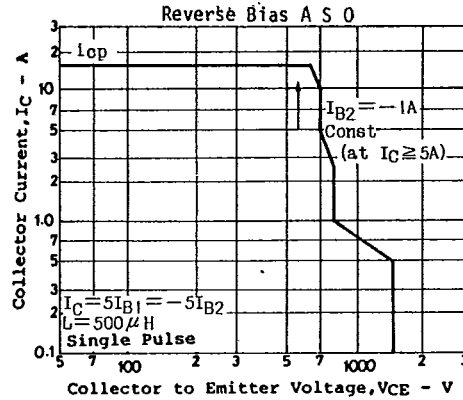
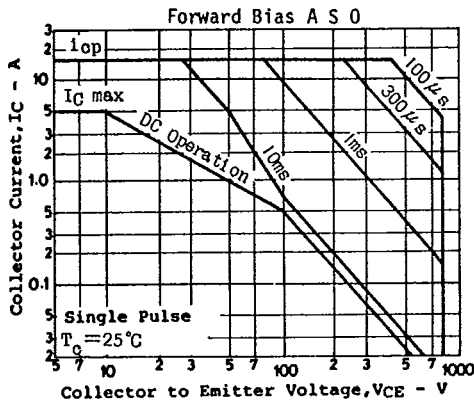


6057KI/N144KI/9114KI,TS BU508,A-1/3

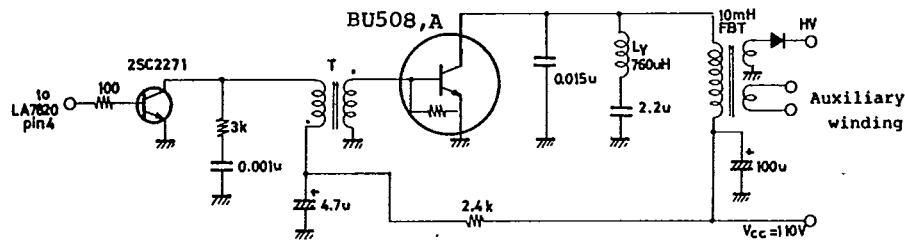


BU508, BU508A

T-33-11



Sample Application Circuit



T : C5163
 NP = 1025T
 NS = 48 3/4 T
 Core .DR8X11

$I_{B1} = 0.8A$
 $-I_{B2} = 0.9 \sim 1.6A$
 $I_C = 4A$

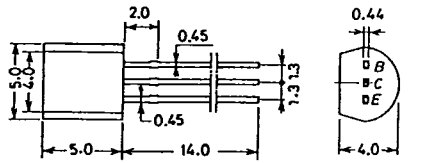
T-91-20

CASE OUTLINES AND ATTACHMENTS

- All of Sanyo Transistor case outlines are illustrated below.
- All dimensions are in mm, and dimensions which are not followed by min. or max. are represented by typical values.
- No marking is indicated.

Case Outline-[2003A]

unit:mm

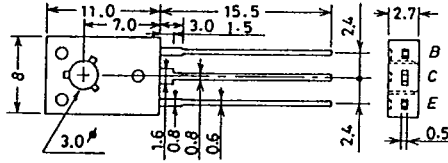


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

B. Base
C. Collector
E. Emitter

Case Outline-[2009A]

unit:mm

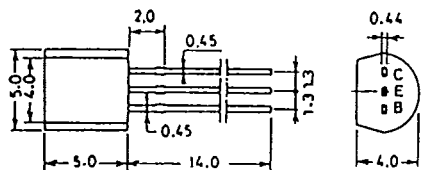


JEDEC: TO-126

B: Base
C: Collector
E: Emitter

Case Outline-[2004A]

unit:mm

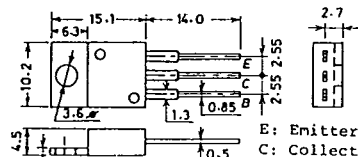


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

C. Collector
E. Emitter
B. Base

Case Outline-[2010A]

unit:mm

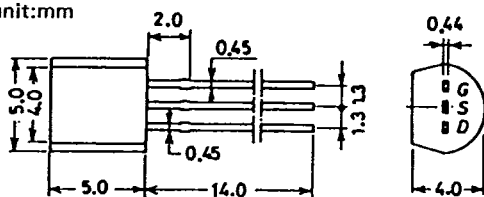


JEDEC: TO-220AB
EIAJ: SC-46

E: Emitter
C: Collector
B: Base

Case Outline-[2005A]

unit:mm

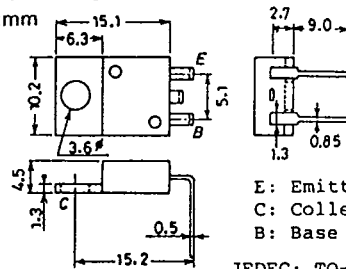


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

G: Gate
S: Source
D: Drain
B: Base
C: Collector

Case Outline-[2012]

unit:mm

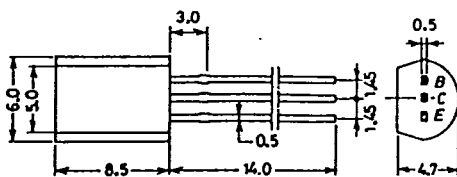


JEDEC: TO-220AA
EIAJ: SC-45

E: Emitter
C: Collector
B: Base

Case Outline-[2006A]

unit:mm

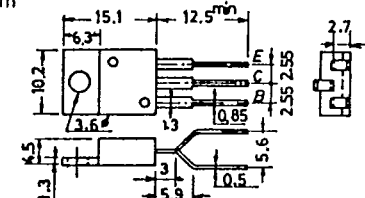


EIAJ: SC-51
SANYO: MP

B: Base
C: Collector
E: Emitter

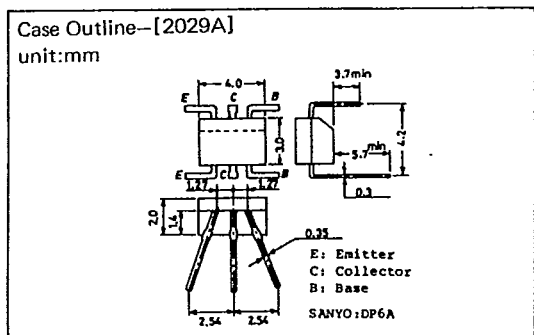
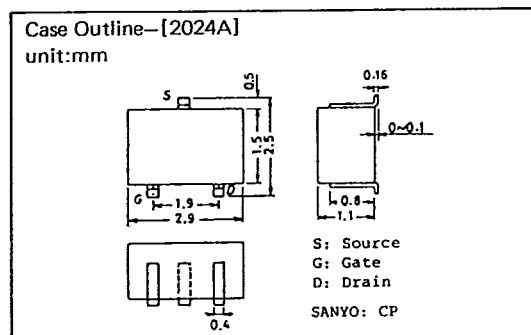
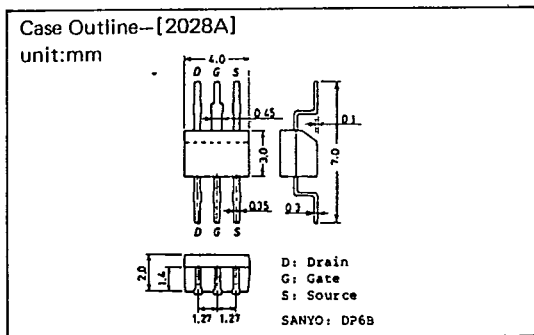
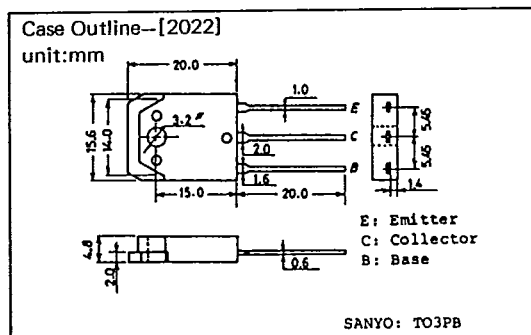
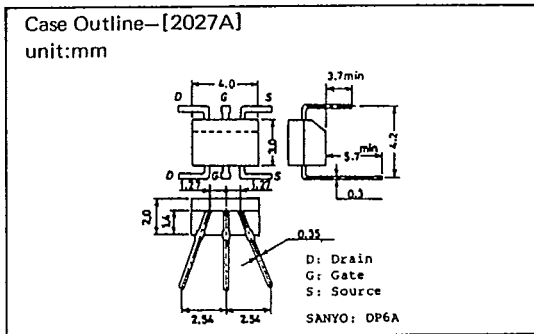
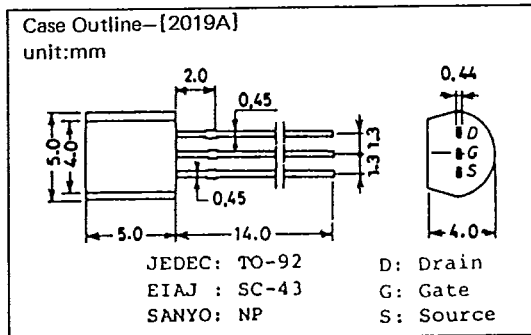
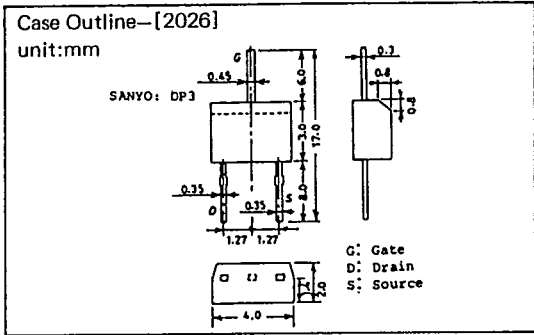
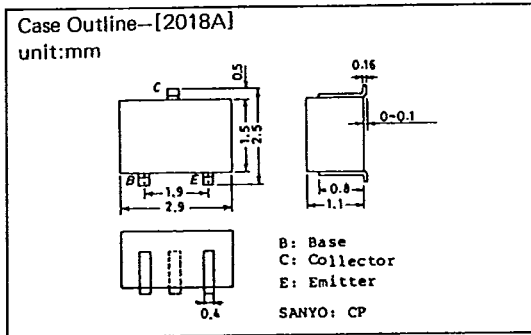
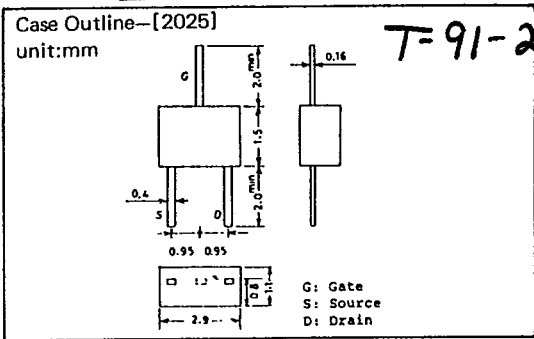
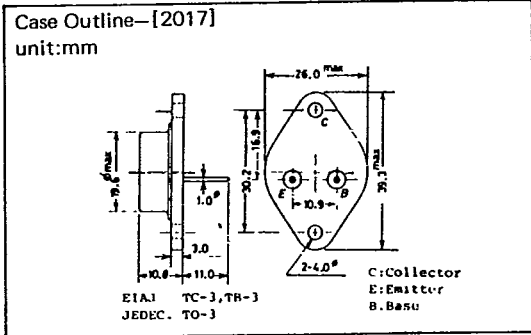
Case Outline-[2013]

unit:mm

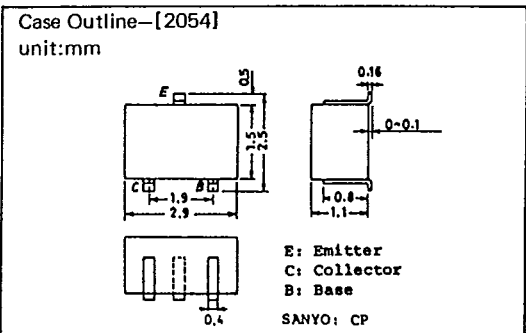
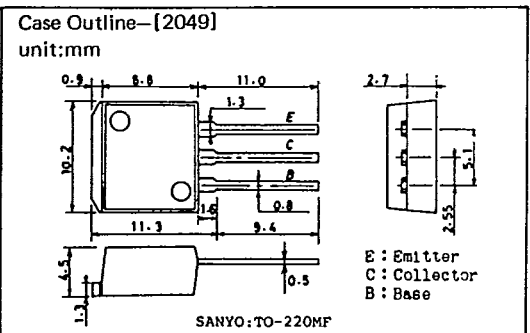
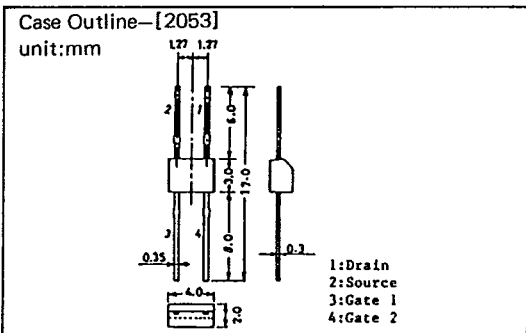
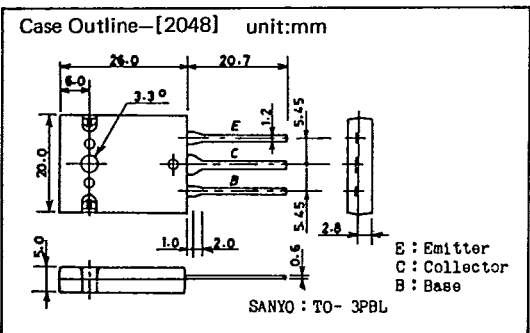
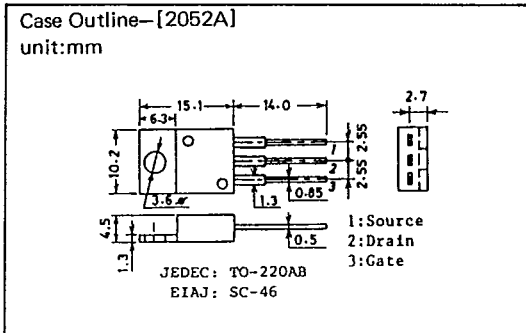
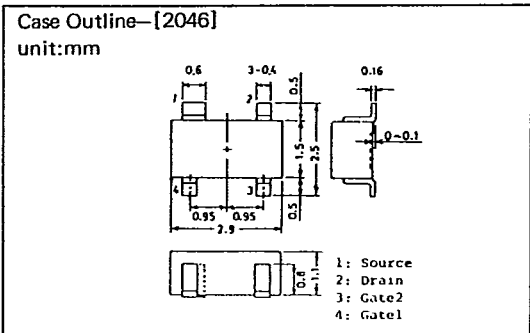
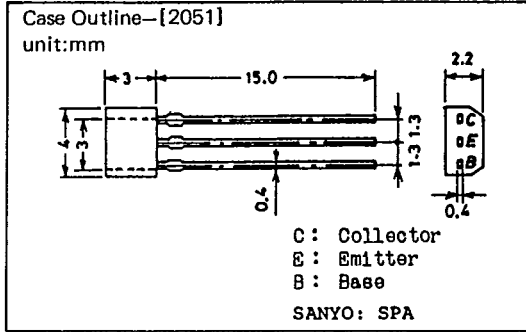
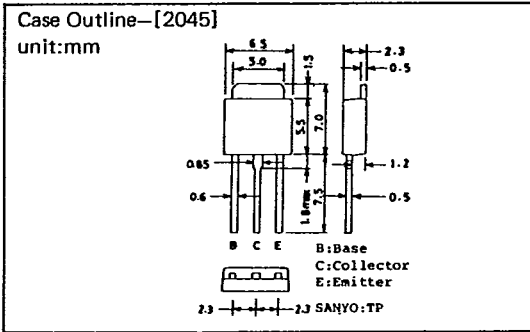
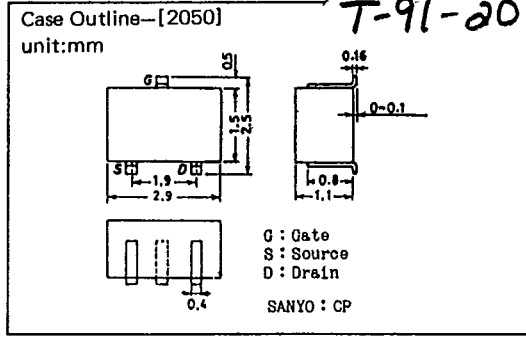
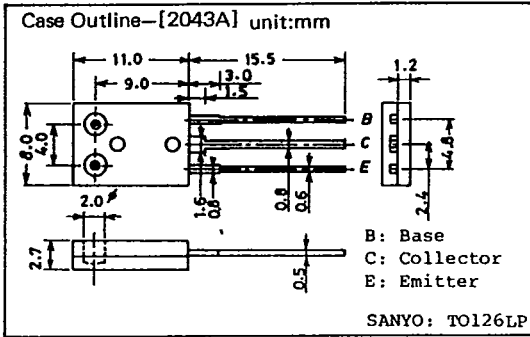


JEDEC TO-220

B: Base
C: Collector
E: Emitter



T-91-20



T-91-20

