

3SK168



2053

GaAs Dual Gate MES
Silicon Field-Effect Transistor

T-31-25

UHF Amp, Mixer Applications

©2252

Absolute Maximum Ratings at Ta=25°C

			unit
Drain to Source Voltage	V_{DS}	12	V
Gate1 to Source Voltage	V_{G1S}	-6	V
Gate2 to Source Voltage	V_{G2S}	-6	V
Drain Current	I_D	55	mA
Allowable Power Dissipation	P_D	250	mW
Junction Temperature	T_J	125	°C
Storage Temperature	T_{stg}	-55 to +125	°C

Electrical Characteristics at Ta=25°C

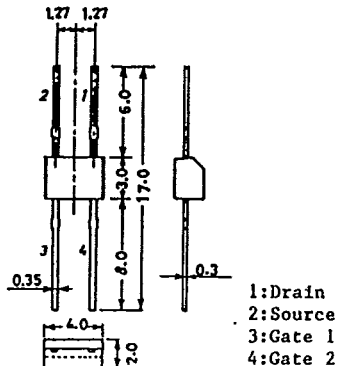
			min	typ	max	unit
Gate1 Cutoff Current	I_{G1SS}	$V_{G1S}=-6V, V_{G2S}=V_{DS}=0V$			20	uA
Gate2 Cutoff Current	I_{G2SS}	$V_{G2S}=-6V, V_{G1S}=V_{DS}=0V$			20	uA
Gate1 to Source Cutoff Voltage	$V_{G1S(off)}$	$V_{DS}=5V, V_{G2S}=0V, I_D=100uA$			-6	V
Gate2 to Source Cutoff Voltage	$V_{G2S(off)}$	$V_{DS}=5V, V_{G1S}=0V, I_D=100uA$			-6	V
Drain Current	I_{DSS}	$V_{DS}=5V, V_{G1S}=V_{G2S}=0V$	10*		55*	mA
Drain to Source Breakdown Voltage	$V_{(BR)DSX}$	$I_D=50uA, V_{G1S}=V_{G2S}=-6V$	12			V
Forward Transfer Admittance	$ y_{fs} $	$f=1kHz, I_D=10mA, V_{DS}=5V, V_{G2S}=1.5V$	10	19		mS
Input Capacitance	C_{iss}	$V_{DS}=5V, f=1MHz, V_{G1S}=V_{G2S}=-6V$		0.45		pF
Reverse Transfer Capacitance	C_{rss}			0.02	0.05	pF
Voltage Gain	P_G	$V_{DS}=5V, I_D=10mA, f=1GHz, V_{G2S}=1.5V$	14	20		dB
Noise Figure	NF			1.3	2.6	dB

*: The 3SK168 is classified by I_{DSS} as follows(unit:mA):

10	B	25	20	C	35	30	D	45	40	E	55
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Case Outline 2053

(unit:mm)



4237TA, TS No.2252-1/1

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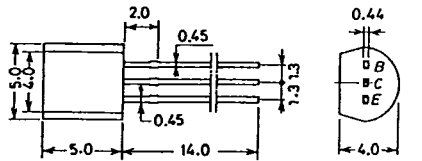
T-91-20

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

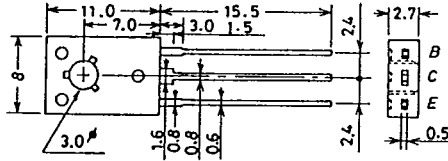


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

B: Base
C: Collector
E: Emitter

Case Outline-[2009A]

unit:mm

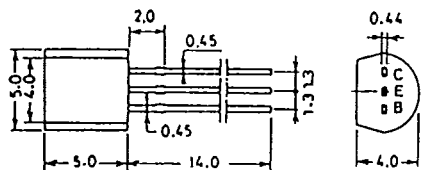


JEDEC: TO-126

B: Base
C: Collector
E: Emitter

Case Outline-[2004A]

unit:mm

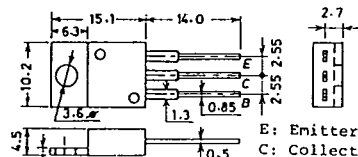


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

C: Collector
E: Emitter
B: Base

Case Outline-[2010A]

unit:mm

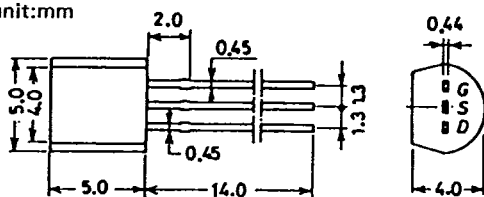


JEDEC: TO-220AB
EIAJ: SC-46

E: Emitter
C: Collector
B: Base

Case Outline-[2005A]

unit:mm

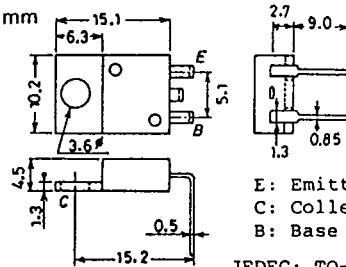


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

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

Case Outline-[2012]

unit:mm

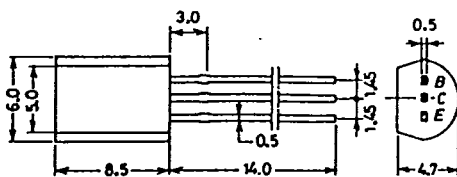


JEDEC: TO-220AA
EIAJ: SC-45

E: Emitter
C: Collector
B: Base

Case Outline-[2006A]

unit:mm

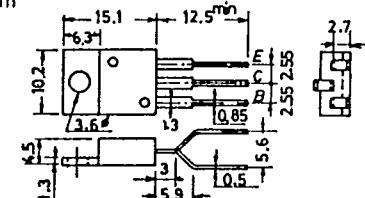


EIAJ: SC-51
SANYO: MP

B: Base
C: Collector
E: Emitter

Case Outline-[2013]

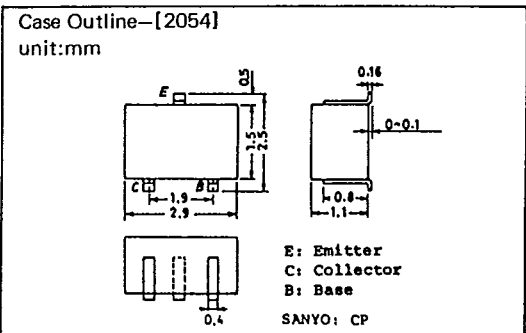
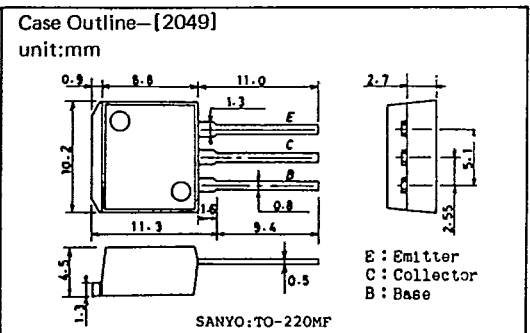
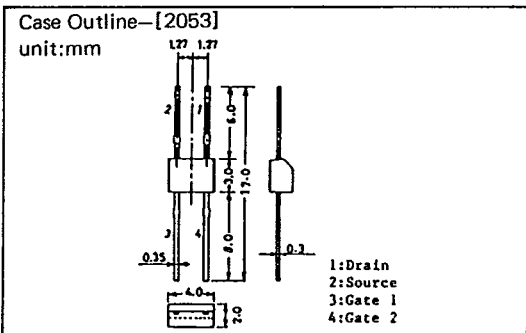
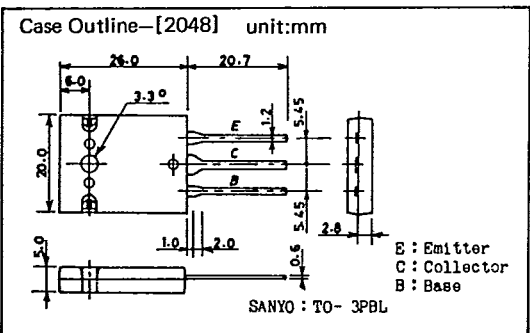
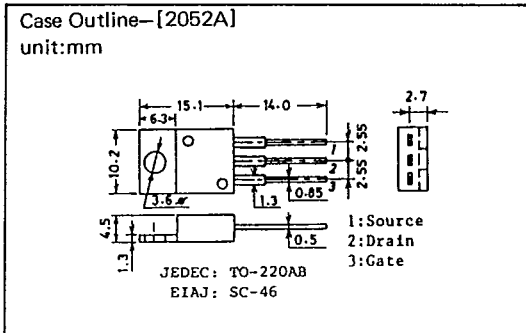
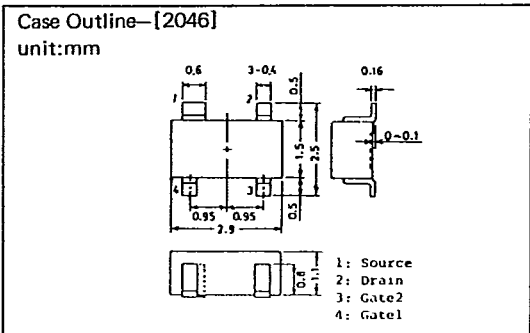
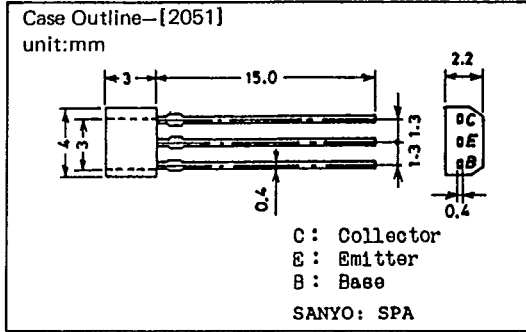
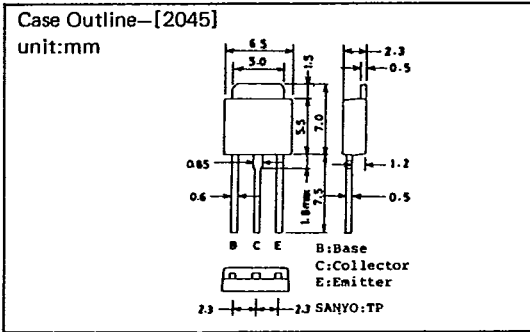
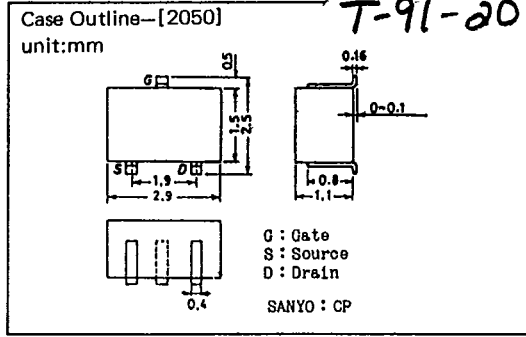
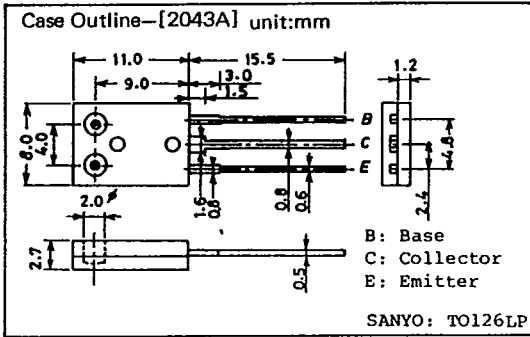
unit:mm



JEDEC TO-220

B: Base
C: Collector
E: Emitter

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