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KSA940

Vertical Deflection Output Power Amplifier
• Complement to KSC2073

TO-220

1.Base   2.Collector   3.Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	- 150	V
V_{CEO}	Collector-Emitter Voltage	- 150	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current	- 1.5	A
I_B	Base Current	- 0.5	A
P_C	Collector Dissipation (T_a=25°C)	1.5	W
P_C	Collector Dissipation (T_C=25°C)	25	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

| Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	V_{CB} = - 120V, I_E = 0			- 10	μA
I_{EBO}	Emitter Cut-off Current	V_{EB} = - 5V, I_C = 0			- 10	μA
h_{FE}	DC Current Gain	V_{CE} = - 10V, I_C = - 500mA	40	75	140	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C = - 500mA, I_B = - 50mA			- 1.5	V
V_{BE}(on)	Base-Emitter ON Voltage	V_{CE} = - 10V, I_C = - 500mA	- 0.65	- 0.75	- 0.85	V
f_T	Current Gain Bandwidth Product	V_{CE} = - 10V, I_C = - 500mA		4		MHz
C_{ob}	Output Capacitance	V_{CB} = - 10V, I_E = 0 f = 1MHz		55		pF

Typical Characteristics
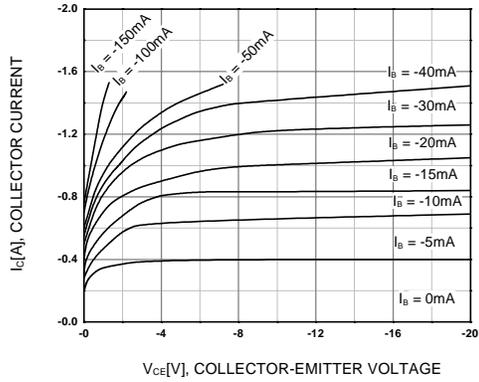
Figure 1. Static Characteristic
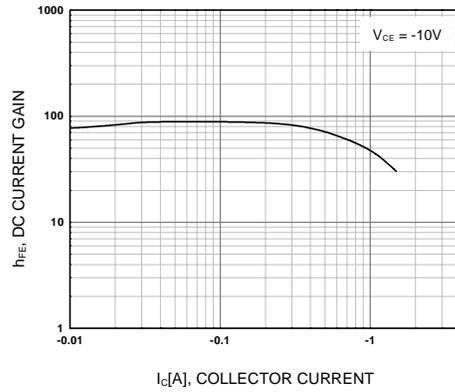
Figure 2. DC current Gain
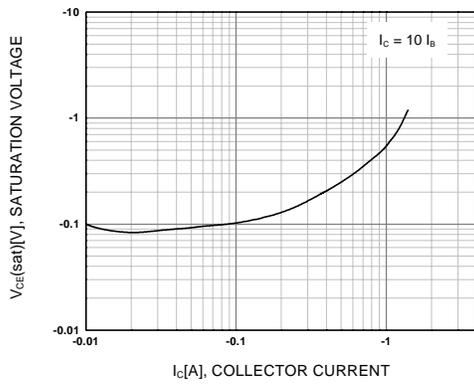
Figure 3. Collector-Emitter Saturation Voltage
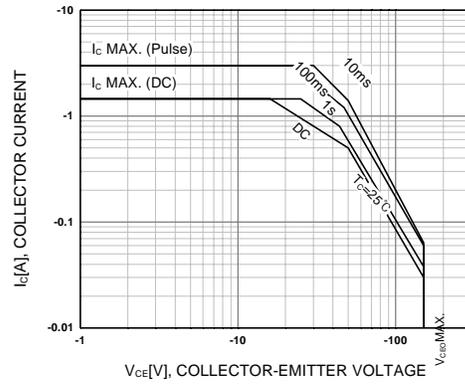
Figure 4. Safe Operating Area

Figure 5. Power Derating

SUPPLIER "A" PACKAGE
SHAPE

SUPPLIER "B" PACKAGE
SHAPE

Ø4.00
3.50

10.67
9.65 /E\

3.40
2.50

IF PRESENT, SEE NOTE "D"

16.51
15.42

16.30
13.90
/E\

9.40
8.13 /E\

[2.46]

C

1 2 3

4.10
2.70

2.13

14.04
12.70

2.06

FRONT VIEWS

1.62
1.42 /H\

2.67
2.40

1.62
1.10

1.00
0.55

4.70
4.00

"A1"
SEE NOTE "F"

8.65
7.59

5°
3°

5°
3°

OPTIONAL
CHAMFER

6.69
6.06

/E\

14.30
11.50

NOTE "I"

3 2 1

BOTTOM VIEW
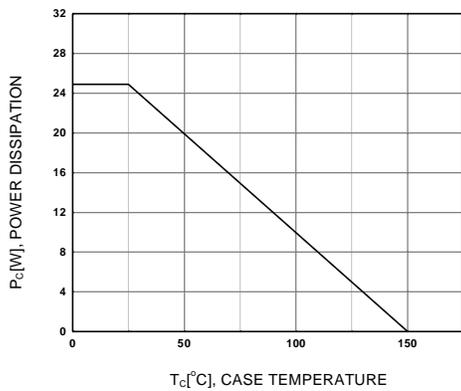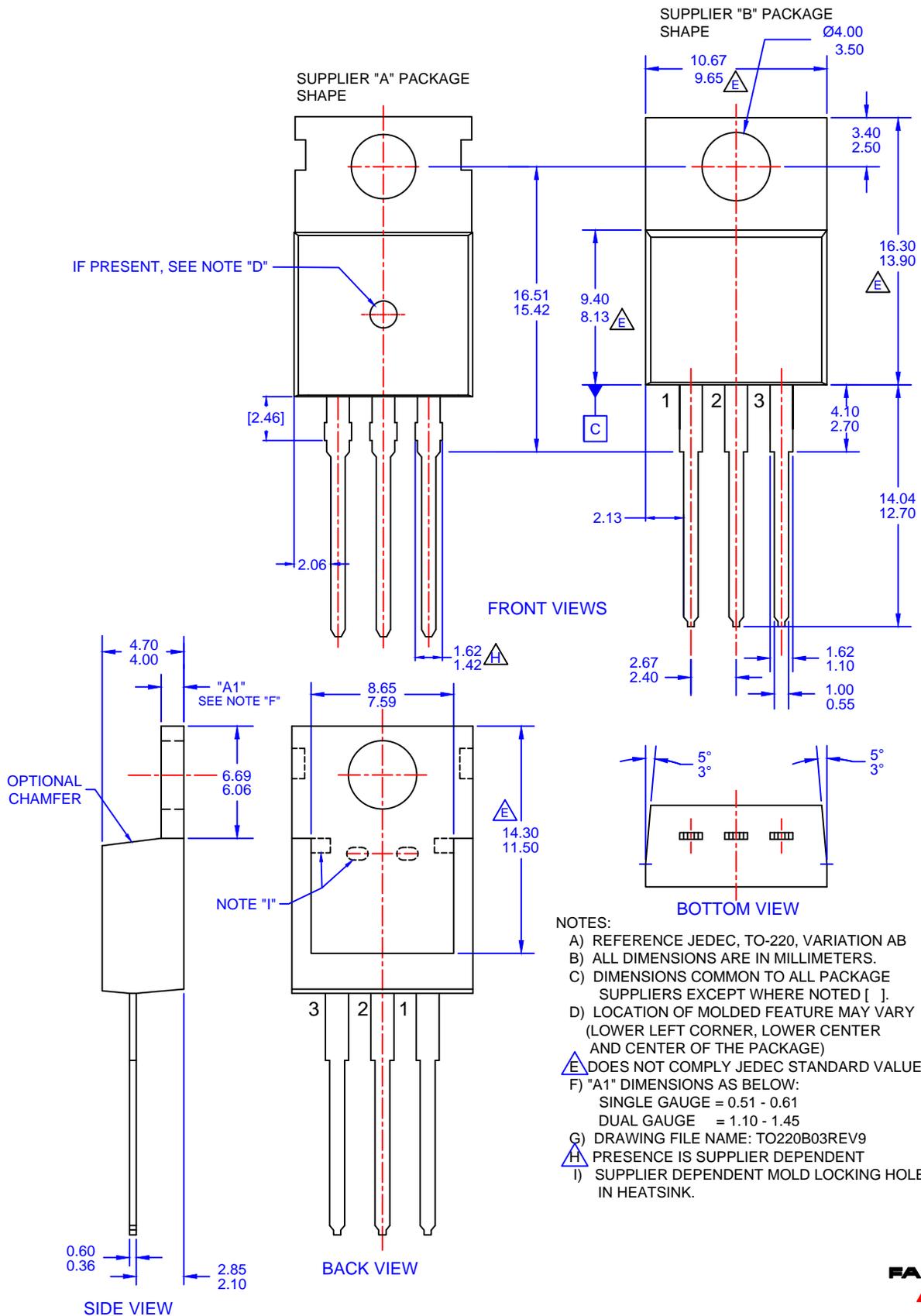
NOTES:
   A) REFERENCE JEDEC, TO-220, VARIATION AB
   B) ALL DIMENSIONS ARE IN MILLIMETERS.
   C) DIMENSIONS COMMON TO ALL PACKAGE
        SUPPLIERS EXCEPT WHERE NOTED [ ].
   D) LOCATION OF MOLDED FEATURE MAY VARY
        (LOWER LEFT CORNER, LOWER CENTER
        AND CENTER OF THE PACKAGE)
   /E\ DOES NOT COMPLY JEDEC STANDARD VALUE.
   F) "A1" DIMENSIONS AS BELOW:
        SINGLE GAUGE = 0.51 - 0.61
        DUAL GAUGE   = 1.10 - 1.45
   G) DRAWING FILE NAME: TO220B03REV9
   /H\ PRESENCE IS SUPPLIER DEPENDENT
   I) SUPPLIER DEPENDENT MOLD LOCKING HOLES
        IN HEATSINK.

0.60
0.36

2.85
2.10

BACK VIEW

SIDE VIEW

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