

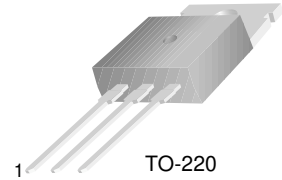


# KSA614

KSA614

## Low Frequency Power Amplifier Power Regulator

- Collector-Base Voltage :  $V_{CBO} = -80V$
- Collector Dissipation :  $P_C = 25W$  ( $T_C = 25^\circ C$ )



1.Base 2.Collector 3.Emitter

## PNP Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_C = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector- Base Voltage	- 80	V
$V_{CEO}$	Collector- Emitter Voltage	- 55	V
$V_{EBO}$	Emitter- Base Voltage	- 5	V
$I_C$	Collector Current	- 3	A
$P_C$	Collector Dissipation ( $T_C = 25^\circ C$ )	25	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ C$

### Electrical Characteristics $T_C = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = - 500\mu A, I_E = 0$	- 80			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = - 10mA, I_B = 0$	- 55			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = - 500\mu A, I_C = 0$	- 5			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = - 50V, I_E = 0$			- 50	$\mu A$
$h_{FE}$	DC Current Gain	$V_{CE} = - 5V, I_C = - 0.5A$	40		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = - 1A, I_B = - 0.1A$		- 0.15	- 0.5	V

### $h_{FE}$ Classification

Classification	R	O	Y
$h_{FE}$	40 ~ 80	70 ~ 140	120 ~ 240

# Typical Characteristics

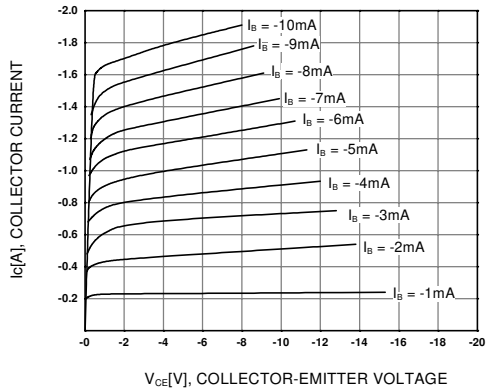


Figure 1. Static Characteristic

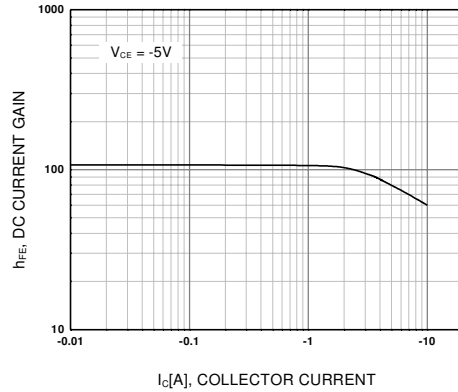


Figure 2. DC current Gain

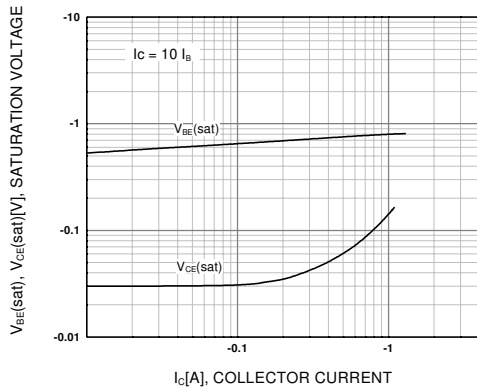


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

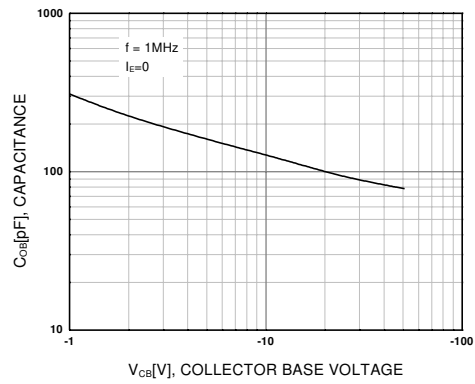


Figure 4. Collector Output Capacitance

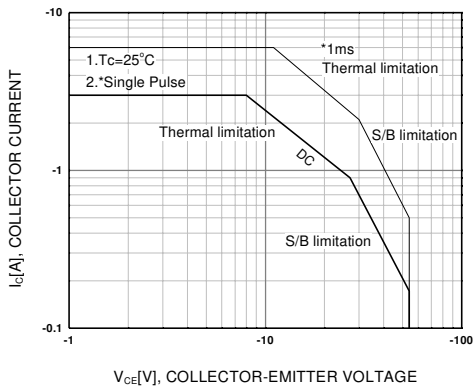


Figure 5. Safe Operating Area

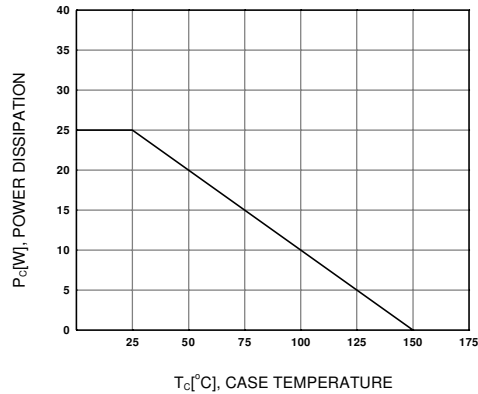
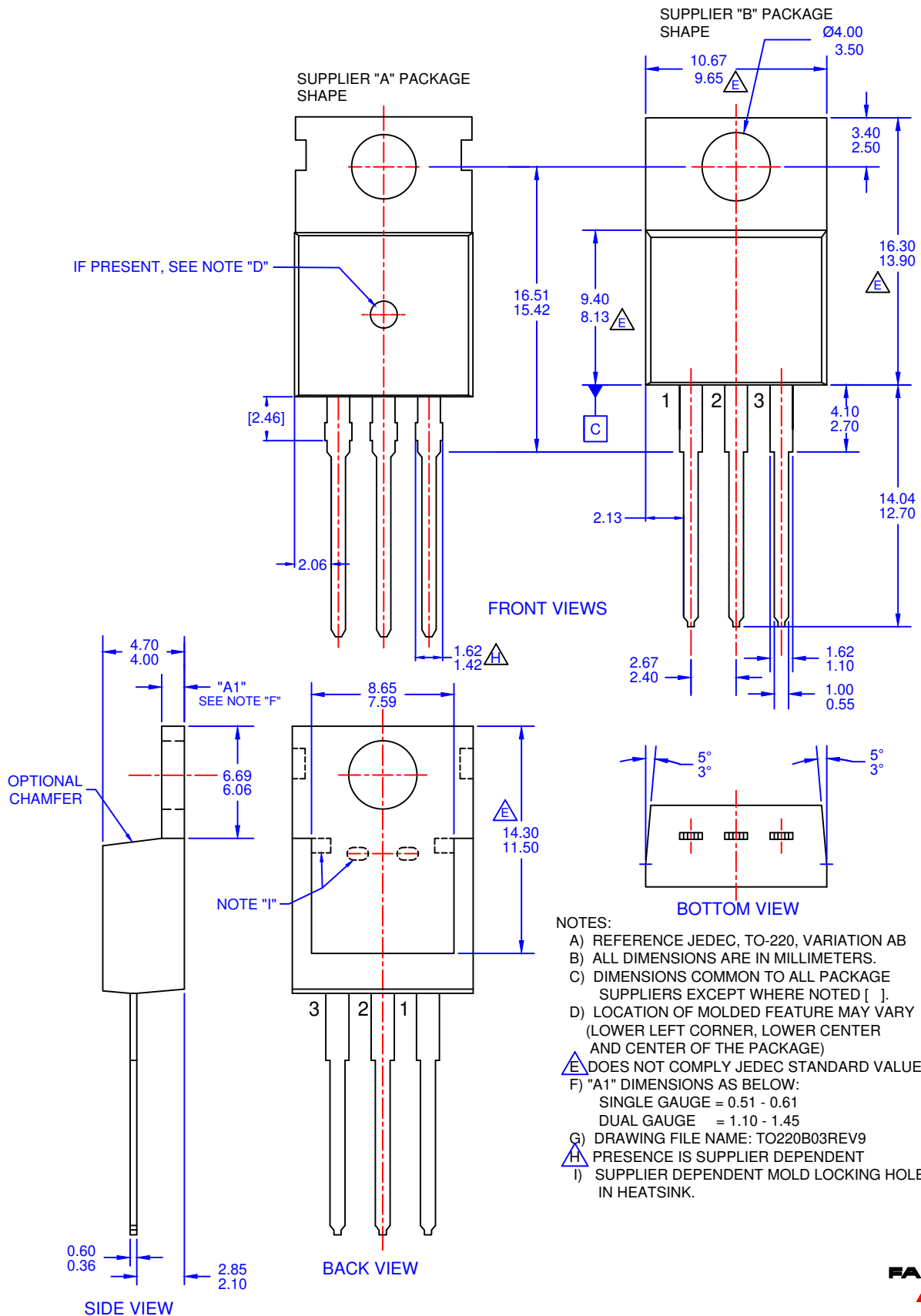


Figure 6. Power Derating








- 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.



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Rev. I77