



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

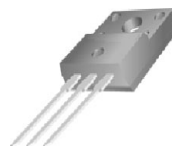
TO-220F Plastic-Encapsulate Transistors

KSA614F TRANSISTOR (PNP)

FEATURE

- Low Frequency Amplifier
- Medium Speed Switching

TO-220F



1. BASE
2. COLLECTOR
3. EMITTE

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	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 -Continuous	-3	A
P_C	Collector Dissipation	2	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_C = -500\mu\text{A}$, $I_E = 0$	-80			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_C = -10\text{mA}$, $I_B = 0$	-55			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_E = -500\mu\text{A}$, $I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50\text{V}$, $I_E = 0$			-50	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}$, $I_C = 0$			-50	μA
DC current gain	h_{FE}	$V_{CE} = -5\text{V}$, $I_C = -500\text{mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1\text{A}$, $I_B = -100\text{mA}$			-0.5	V

CLASSIFICATION OF h_{FE}

Rank	R	O	Y
Range	40-80	70-140	120-240

Typical Characteristics

KSA614F

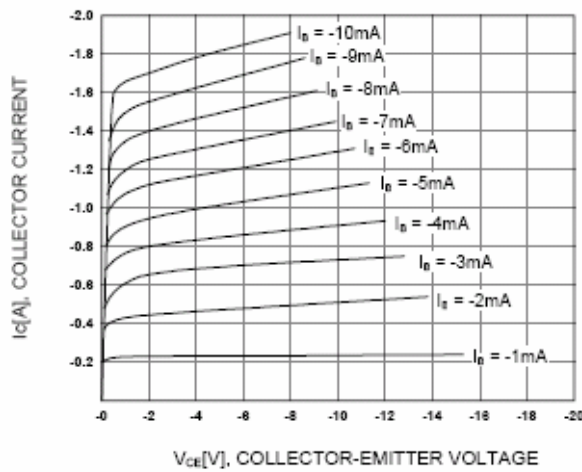


Figure 1. Static Characteristic

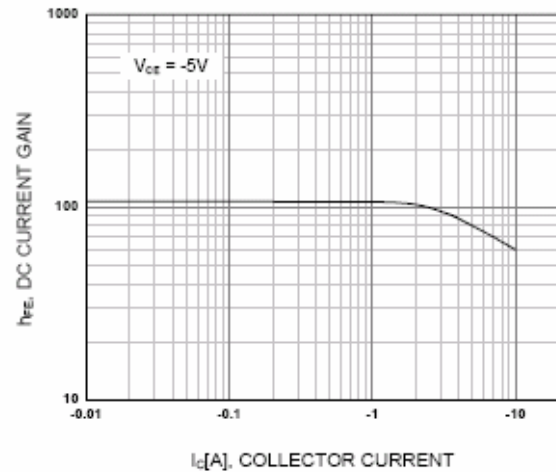


Figure 2. DC current Gain

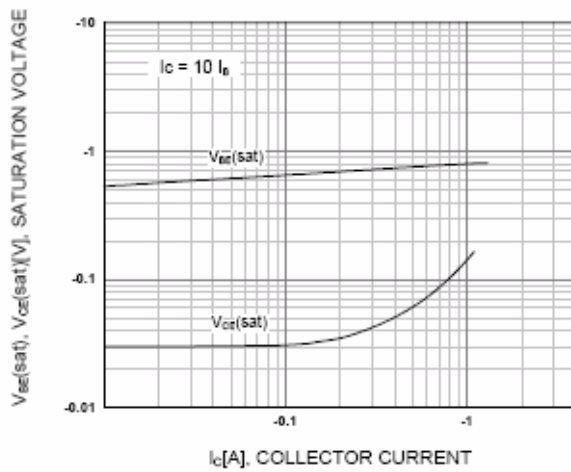


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

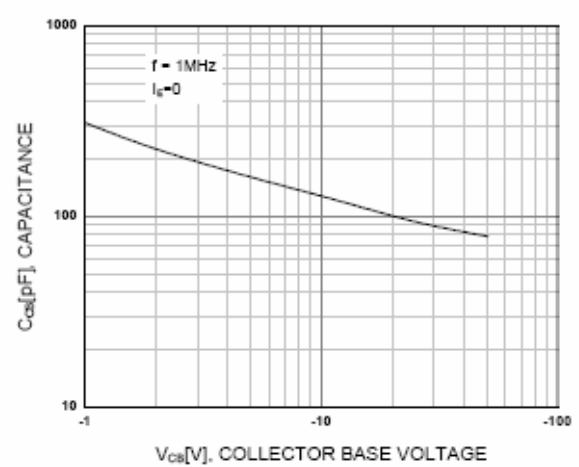


Figure 4. Collector Output Capacitance

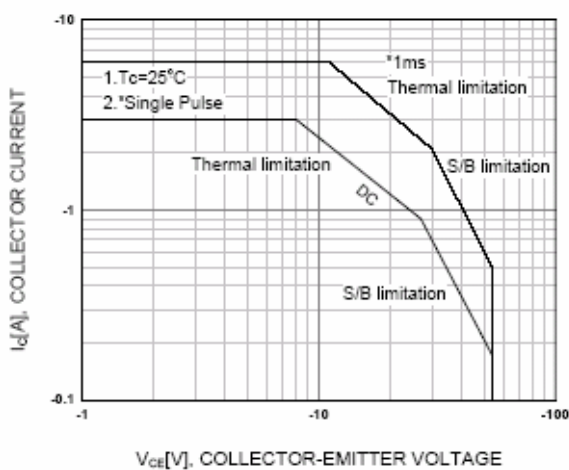


Figure 5. Safe Operating Area

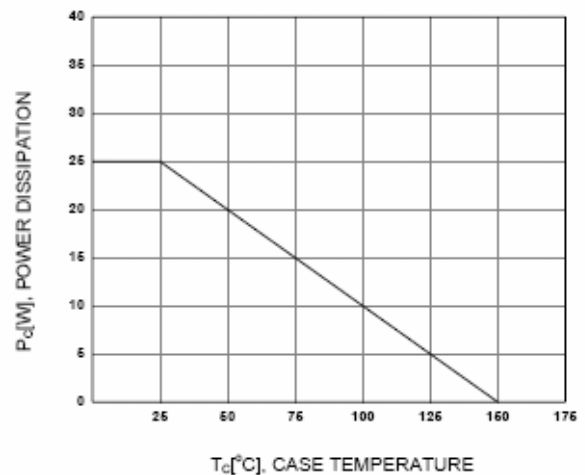


Figure 6. Power Derating