



**THE DATASHEET OF
KSA12010TF**

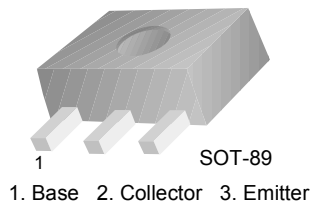


KSA1201

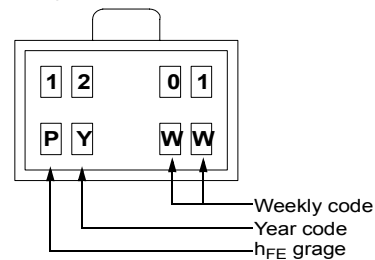
PNP Epitaxial Silicon Transistor

Power Amplifier

- Collector-Emitter Voltage: $V_{CE0} = -120V$
- $f_T = 120MHz$
- Collector Power Dissipation $P_C = 1 \sim 2W$: Mounted on Ceramic Board
- Complement to KSC2881



Marking



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

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-800	mA
I_B	Base Current	-160	mA
P_C P_C^*	Collector Power Dissipation	500 1,000	mW mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

* Mounted on Ceramic Board (250mm² x 0.8mm)

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10mA, I_B = 0$	-120			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -1mA, I_C = 0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -120V, I_E = 0$			-100	nA
I_{EBO}	Emitter Cut-off Current	$V_{BE} = -5V, I_C = 0$			-100	nA
h_{FE}	DC Current Gain	$V_{CE} = -5V, I_C = -100mA$	80		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -500mA, I_B = -50mA$			-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -5V, I_C = -500mA$			-1.0	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -5V, I_C = -100mA$		120		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$			30	pF

h_{FE} Classification

Classification	O	Y
h _{FE}	80 ~ 160	120 ~ 240

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
1201	KSA1201	SOT-89	13"	--	4,000

Typical Performance Characteristics

Figure 1. Static Characteristic

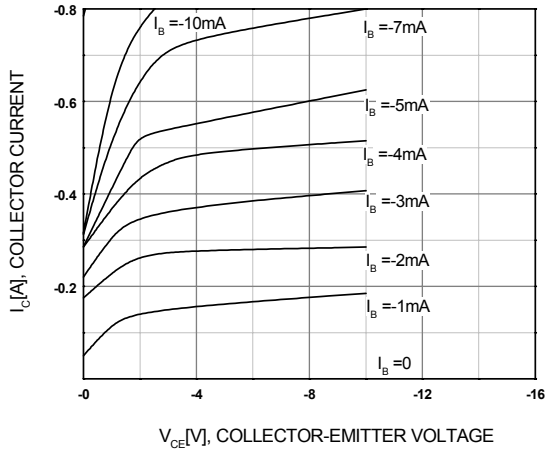


Figure 2. DC Current Gain

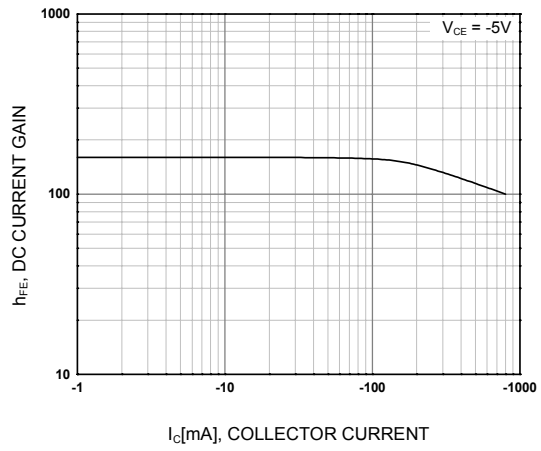


Figure 3. Collector-Emitter Saturation Voltage

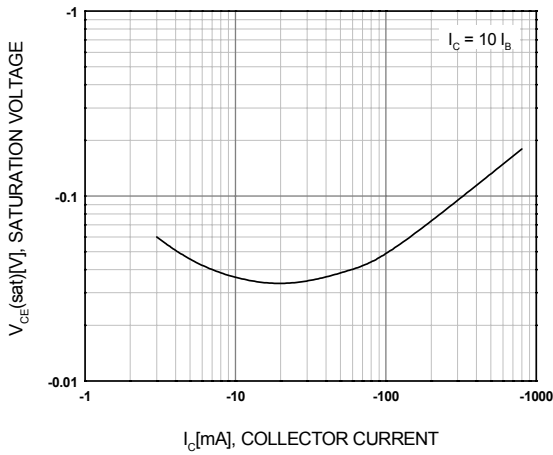


Figure 4. Base-Emitter On Voltage

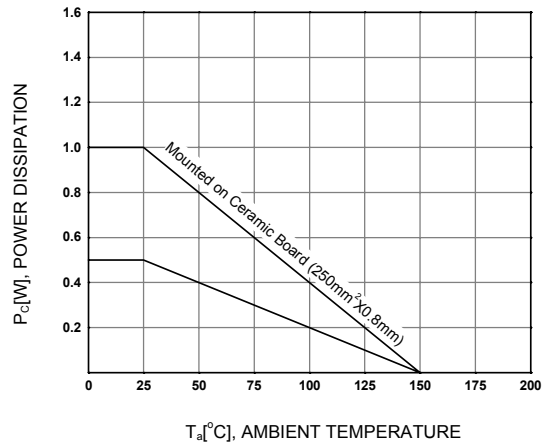


Figure 5. Safe Operating Area

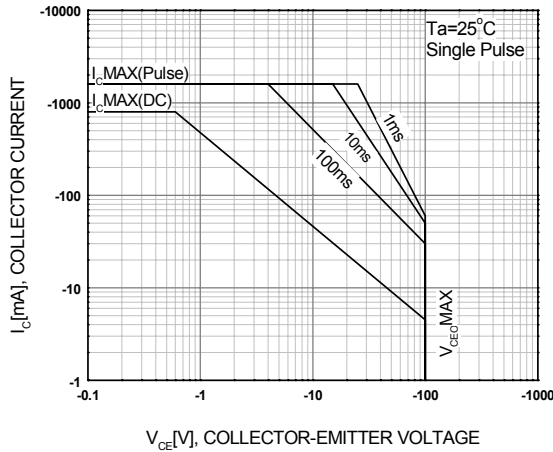
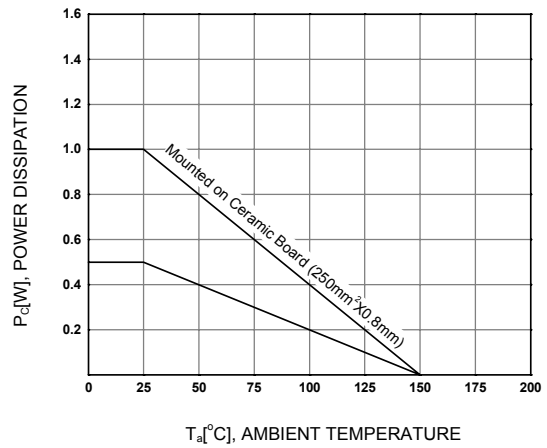
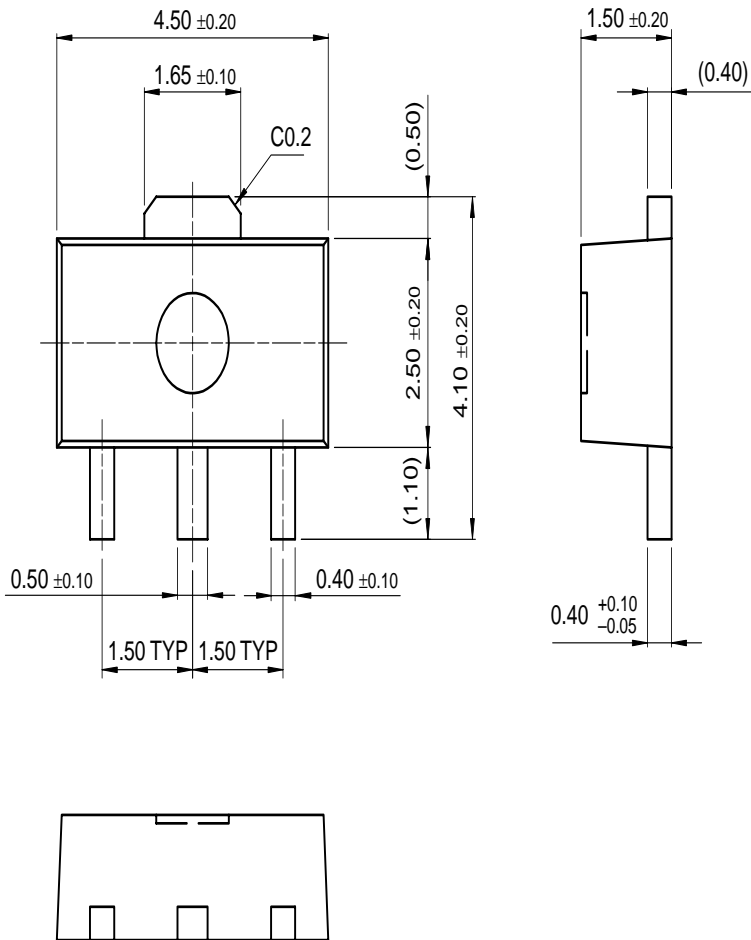


Figure 6. Power Derating



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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