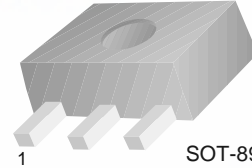


FAIRCHILD
SEMICONDUCTOR®

KSA1201

Power Amplifier

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



1. Base 2. Collector 3. Emitter

PNP Epitaxial Silicon Transistor

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	Collector Power Dissipation	500	mW
P_C^*		1,000	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

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

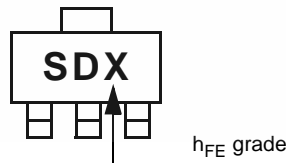
Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

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

Marking



Typical Characteristics

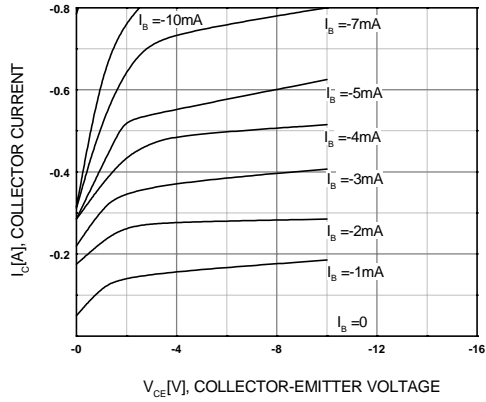


Figure 1. Static Characteristic

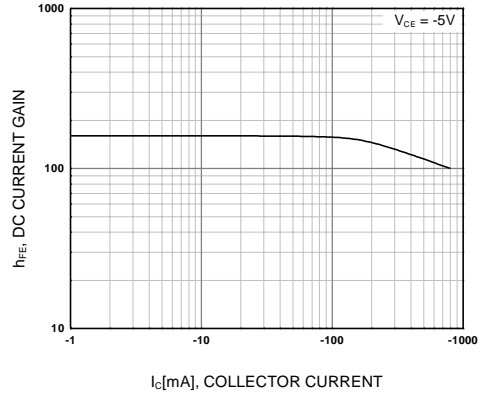


Figure 2. DC current Gain

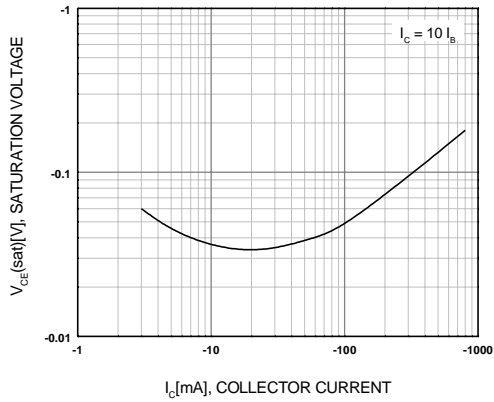


Figure 3. Collector-Emitter Saturation Voltage

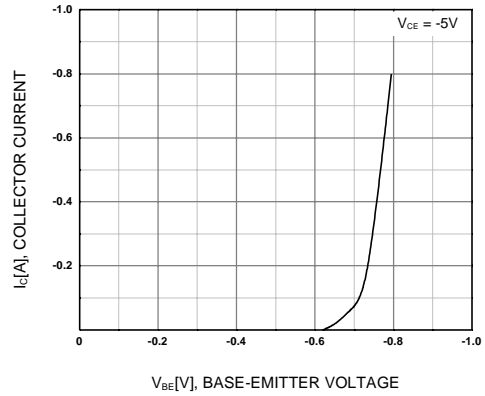


Figure 4. Base-Emitter On Voltage

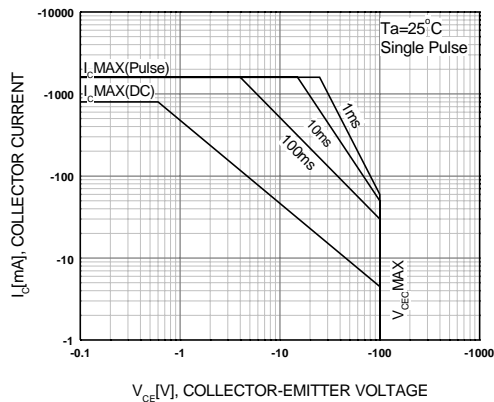


Figure 5. Safe Operating Area

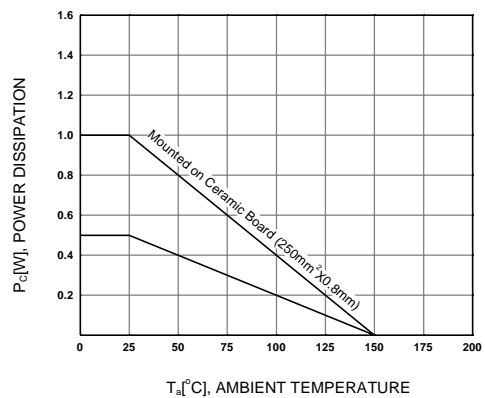
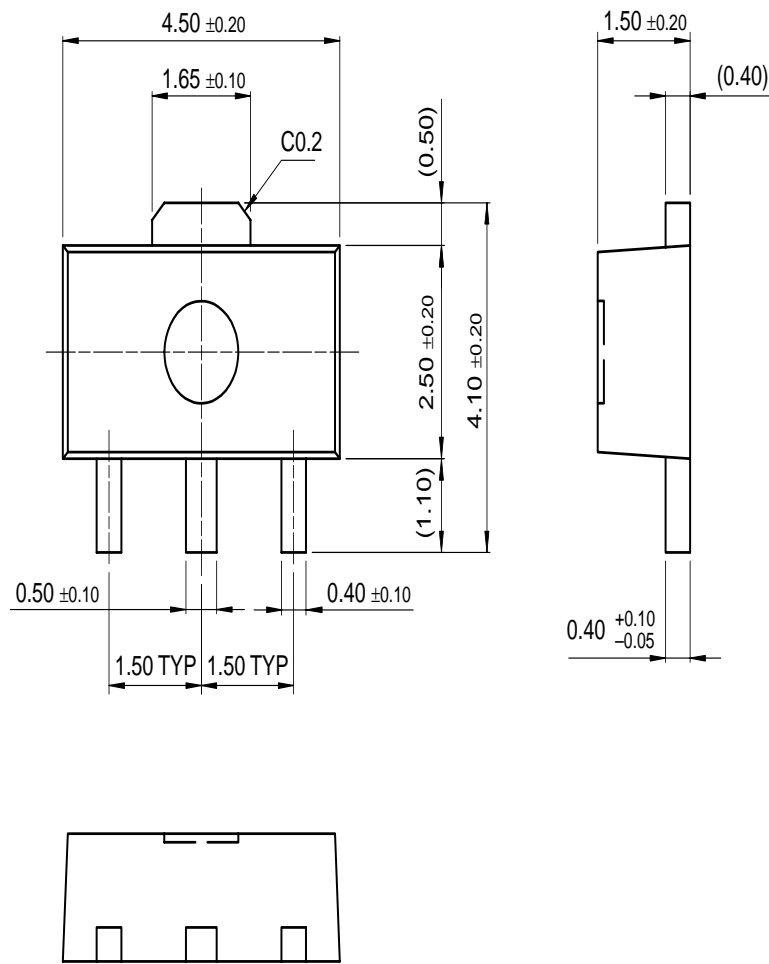


Figure 6. Power Derating

Package Dimensions

KSA1201

SOT-89



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I ² C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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