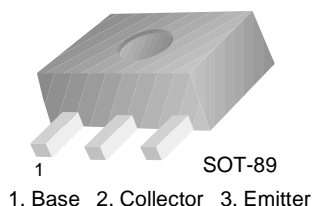


# KSC2881

KSC2881

## Power Amplifier

- Collector-Emitter Voltage :  $V_{CEO}=120V$
- Current Gain Bandwidth Productor :  $f_T=120MHz$
- Collector Dissipation :  $P_C=1\sim 2W$  in Mounted on Ceramic Board
- Complement to KSA1201



## NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	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 (250mm<sup>2</sup>×0.8mm)

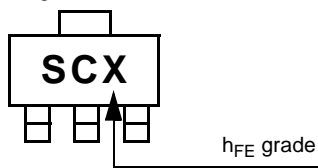
### Electrical Characteristics $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\mu A, I_B=0$	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

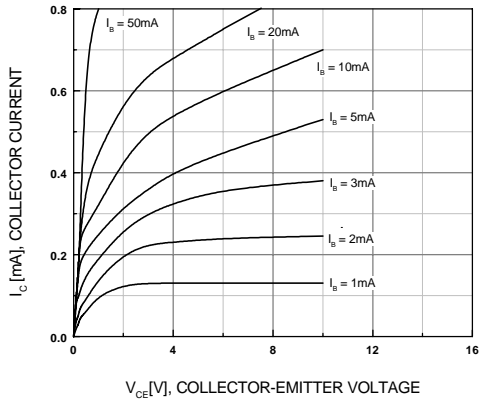


Figure 1. Static Characteristics

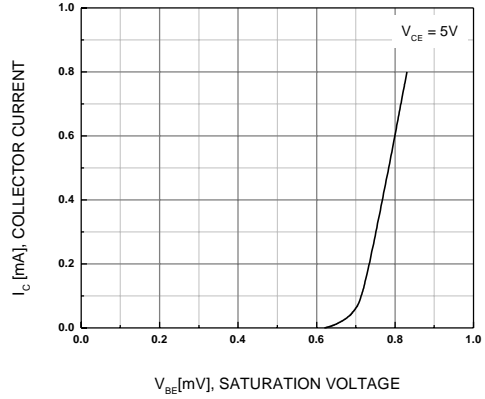


Figure 2. Base-Emitter On Voltage

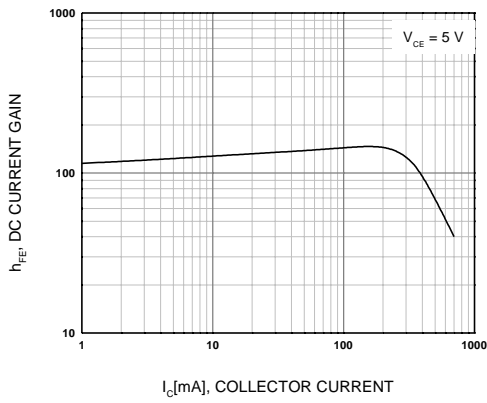


Figure 3. DC Current Gain

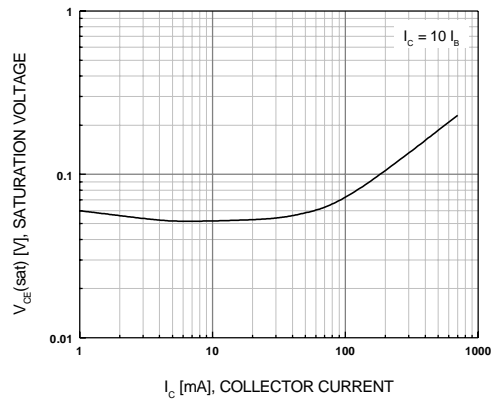


Figure 4. Collector-Emitter Saturation Voltage

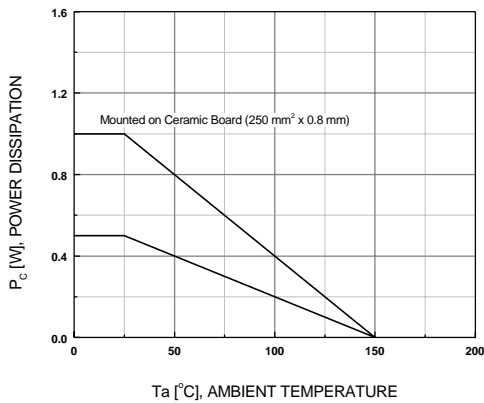


Figure 5. Power Derating

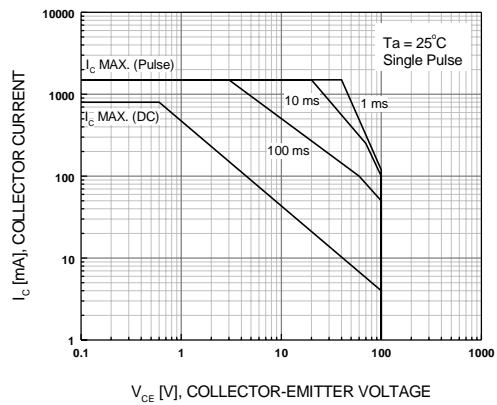
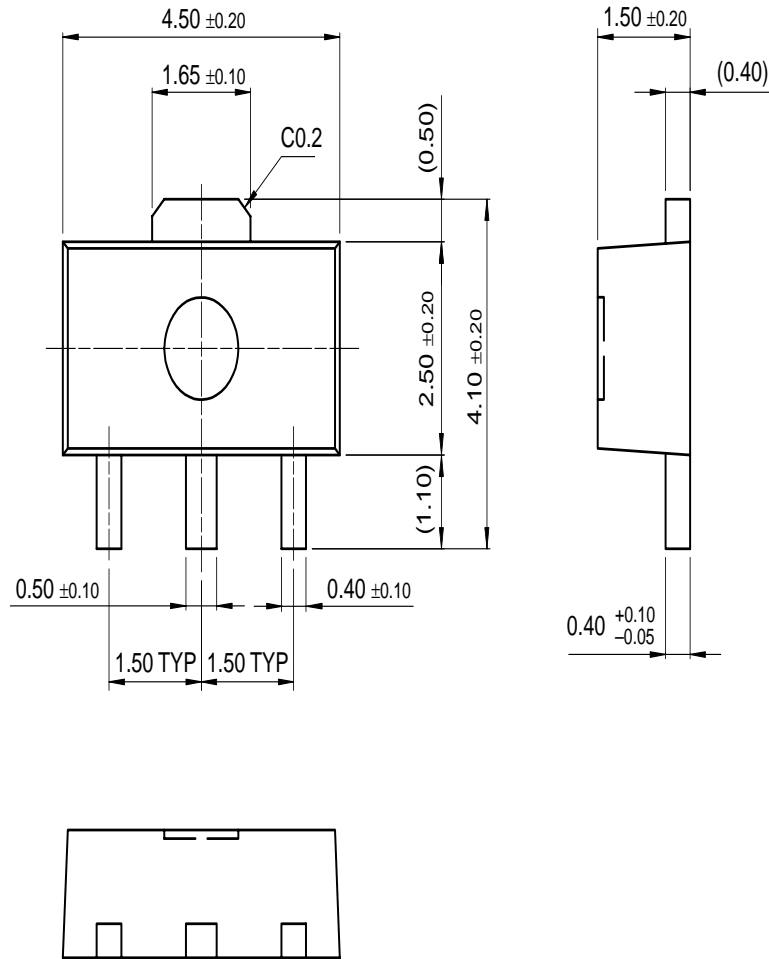


Figure 6. Safe Operating Area

# Package Dimensions

## SOT-89



Dimensions in Millimeters

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CoolFET <sup>™</sup>	FAST <sup>r</sup> <sup>™</sup>	MicroFET <sup>™</sup>	PowerTrench <sup>®</sup>	SuperSOT <sup>™</sup> -6
CROSSVOLT <sup>™</sup>	FRFET <sup>™</sup>	MicroPak <sup>™</sup>	QFET <sup>™</sup>	SuperSOT <sup>™</sup> -8
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