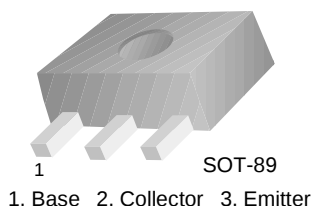


KSC2883

KSC2883

Low Frequency Power Amplifier

- 3W Output Application
- Collector Dissipation : $P_C=1\sim 2W$ in Mounted on Ceramic Board
- Complement to KSA1203



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1.5	A
I_B	Base Current	0.3	A
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 $\times$ 0.8mm)

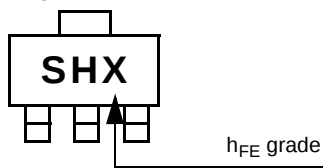
Electrical Characteristics $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=10\mu A, I_B=0$	30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=1mA, I_C=0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=30V, I_E=0$			100	nA
I_{EBO}	Emitter Cut-off Current	$V_{BE}=5V, I_C=0$			100	nA
h_{FE}	DC Current Gain	$V_{CE}=2V, I_C=500mA$	100		320	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1.5A, I_B=30mA$			2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE}=2V, I_C=500mA$			1.0	V
f_T	Current Gain Bandwidth Product	$V_{CE}=2V, I_C=500mA$		120		MHz
C_{ob}	Output Capacitance	$V_{CB}=10V, I_E=0, f=1MHz$		40		pF

h_{FE} Classification

Classification	O	Y
h_{FE}	100 ~ 200	160 ~ 320

Marking



Typical Characteristics

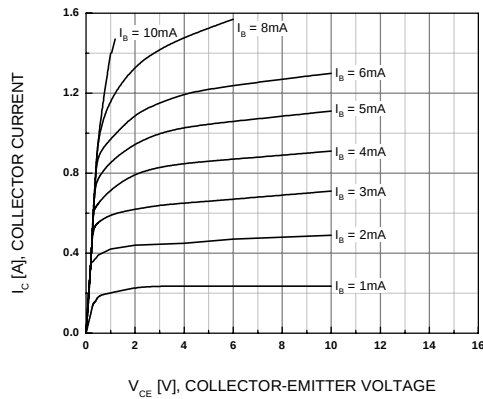


Figure 1. Static Characteristics

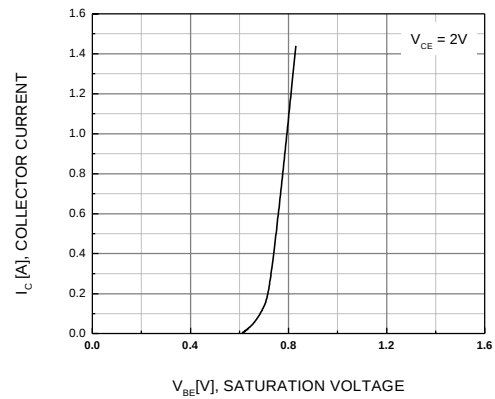


Figure 2. Base-Emitter On Voltage

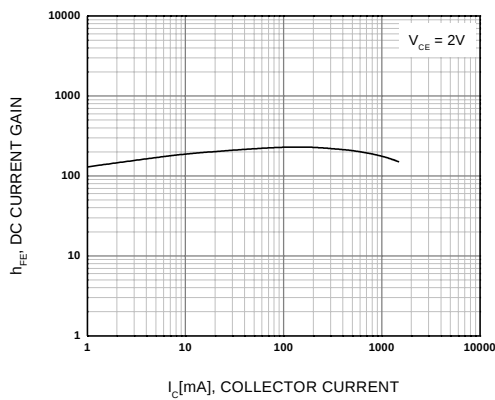


Figure 3. DC Current Gain

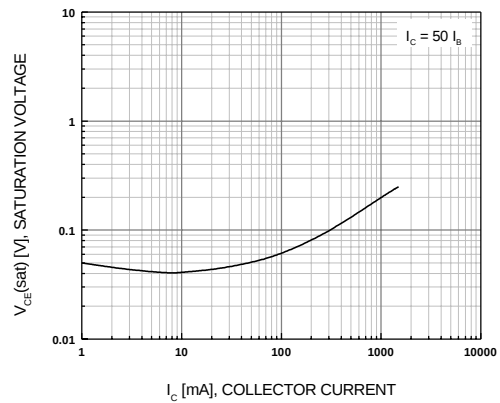


Figure 4. Collector-Emitter Saturation Voltage

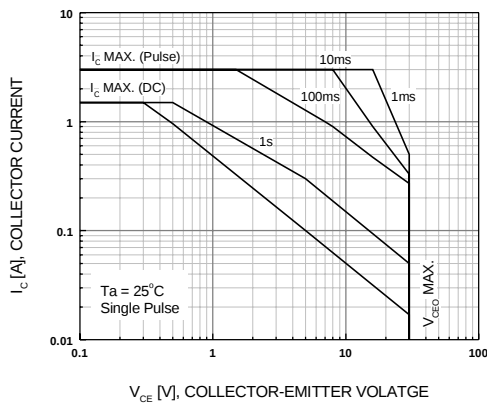


Figure 5. Safe Operating Area

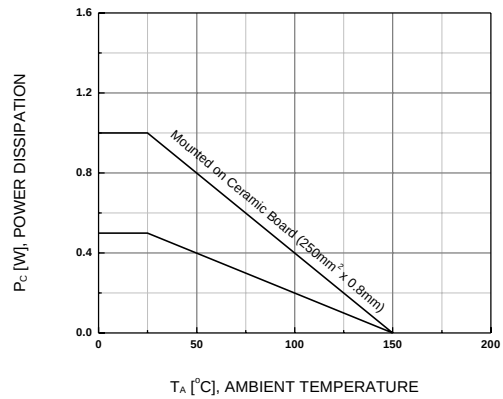


Figure 6. Power Derating

Typical Characteristics (Continued)

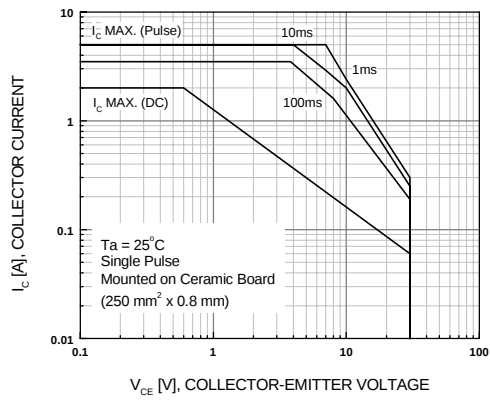


Figure 7. Safe Operating Area

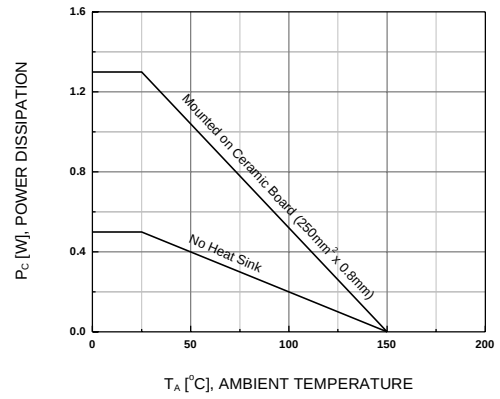
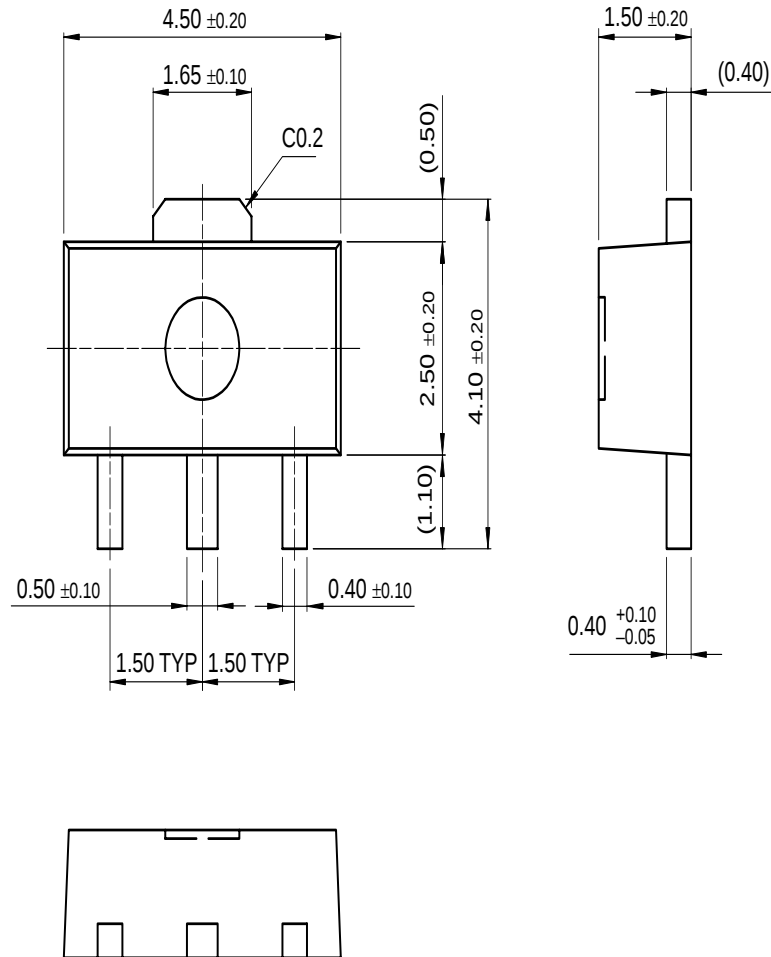


Figure 8. Power Derating

Package Dimensions

SOT-89



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