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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

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### KSC3488

### **Low Frequency Power Amplifier**

- Complement to KSA1378
- Collector Dissipation : P<sub>C</sub>=300mW



1.Emitter 2. Collector 3. Base

## **NPN Epitaxial Silicon Transistor**

### **Absolute Maximum Ratings** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	30	V
V <sub>CEO</sub>	Collector-Emitter Voltage	25	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current	300	mA
P <sub>C</sub>	Collector Power Dissipation	300	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### **Electrical Characteristics** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{C}=100\mu A, I_{E}=0$	30			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =0	25			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	$I_{E}=10\mu A, I_{C}=0$	5			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> =25V, I <sub>E</sub> =0			0.1	μΑ
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB}=3V$ , $I_{C}=0$			0.1	μΑ
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> =1V, I <sub>C</sub> =50mA	70		400	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =300mA, I <sub>B</sub> =30mA		0.14	0.4	V

## **h**<sub>FE</sub> Classification

Classification	0	Υ	G
h <sub>FE</sub>	70 ~ 140	120 ~ 240	200 ~ 400

## **Typical Characteristics**

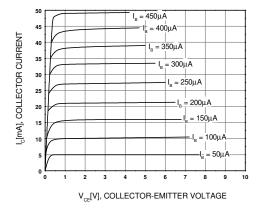


Figure 1. Static Characteristic

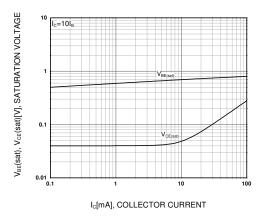


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

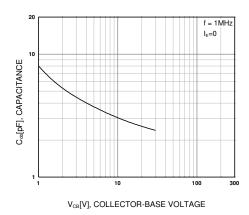


Figure 5. Collector Output Capacitance

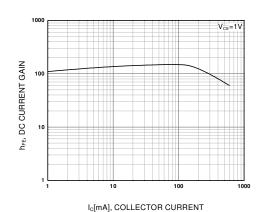


Figure 2. DC current Gain

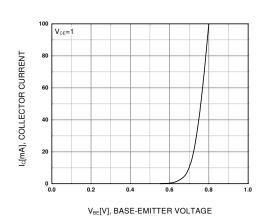


Figure 4. Base-Emitter On Voltage

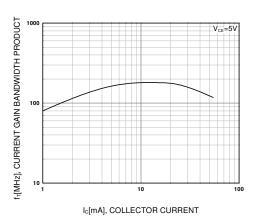


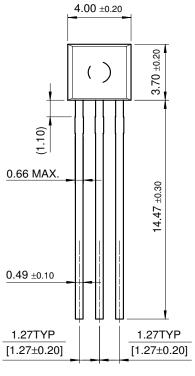
Figure 6. Current Gain Bandwidth Product

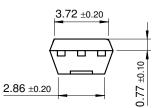
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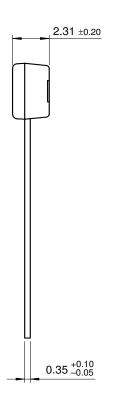
KSC3488

# **Package Dimensions**

## **TO-92S**







Dimensions in Millimeters

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$CROSSVOLT^{TM}$	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E <sup>2</sup> CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I <sup>2</sup> C™	OCX™	RapidConfigure™	UHC™
Across the board.	Around the world.™	OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC <sup>®</sup>	SILENT SWITCHER®	VCX™
Programmable Ad	ctive Droop™	OPTOPLANAR™	SMART START™	

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Rev. I1

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Datasheet Identification	Product Status	Definition
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