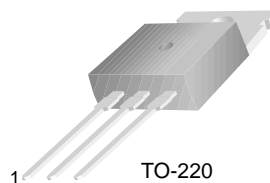


# KSA473

## Low Frequency Power Amplifier Power Regulator

- Collector Current :  $I_C = -3A$
- Collector Dissipation :  $P_C = 10W$  ( $T_C = 25^\circ C$ )
- Complement to KSC1173



1.Base 2.Collector 3.Emitter

## PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	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	- 3	A
$P_C$	Collector Dissipation ( $T_C = 25^\circ C$ )	10	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = - 500\mu A, I_E = 0$	- 30			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = - 10mA, I_B = 0$	- 30			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = - 1mA, I_C = 0$	- 5			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = - 20V, I_E = 0$			- 1.0	$\mu A$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = - 5V, I_C = 0$			- 1.0	$\mu A$
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE} = - 2V, I_C = - 0.5A$ $V_{CE} = - 2V, I_C = - 2.5A$	70 25		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = - 2A, I_B = - 0.2A$		- 0.3	- 0.8	V
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE} = - 2V, I_C = - 0.5A$		- 0.75	- 1.0	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = - 2V, I_C = - 0.5A$		100		MHz
$C_{ob}$	Output Capacitance	$V_{CB} = - 10V, I_E = 0,$ $f = 1MHz$		40		pF

### $h_{FE}$ Classification

Classification	O	Y
$h_{FE1}$	70 ~ 140	120 ~ 240

# Typical Characteristics

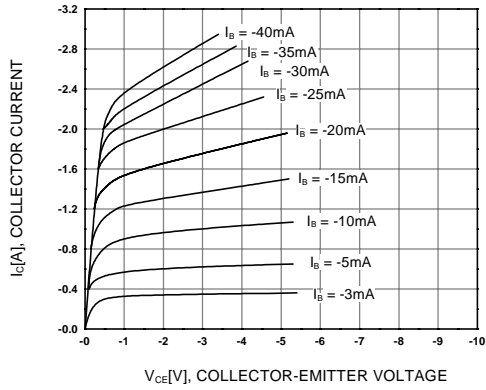


Figure 1. Static Characteristic

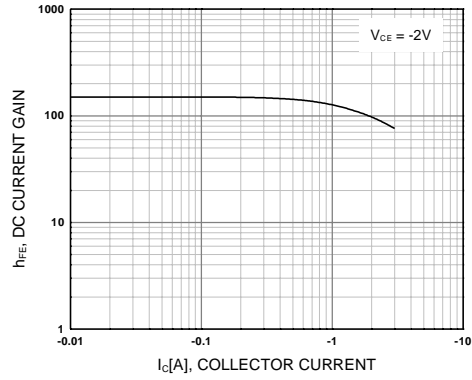


Figure 2. DC current Gain

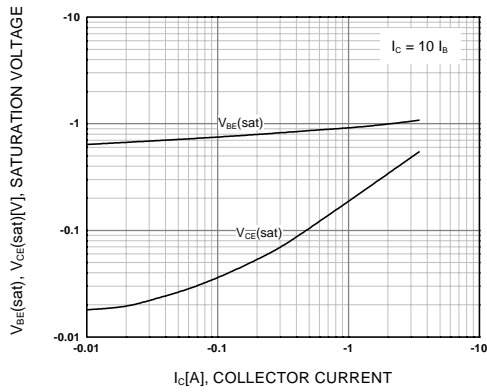


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

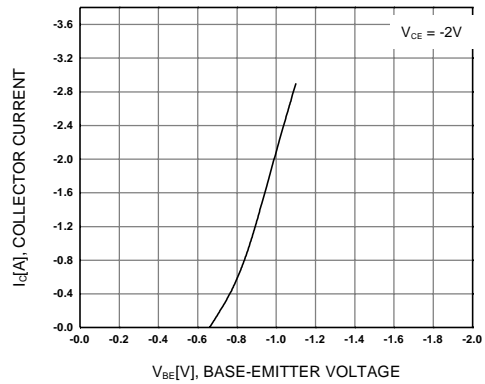


Figure 4. Base-Emitter On Voltage

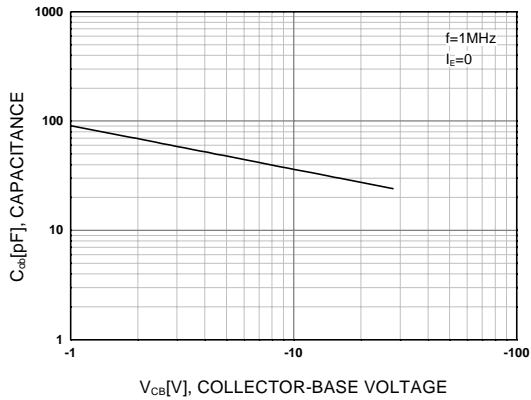


Figure 5. Collector Output Capacitance

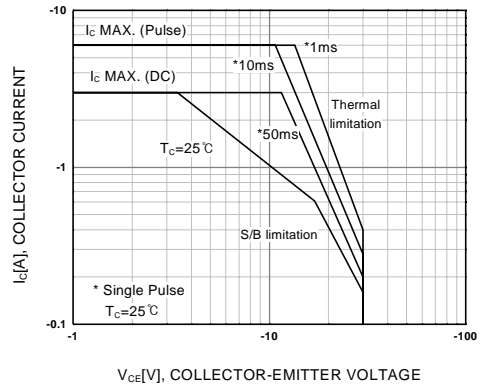


Figure 6. Safe Operating Area

# Typical Characteristics (Continued)

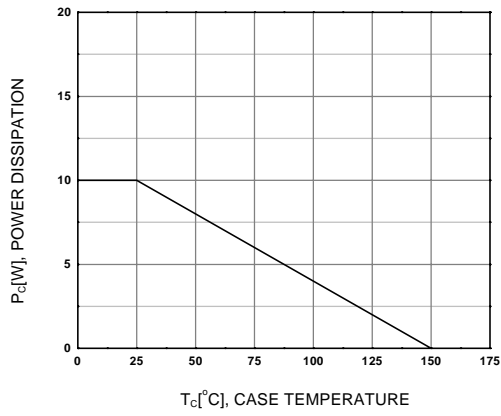
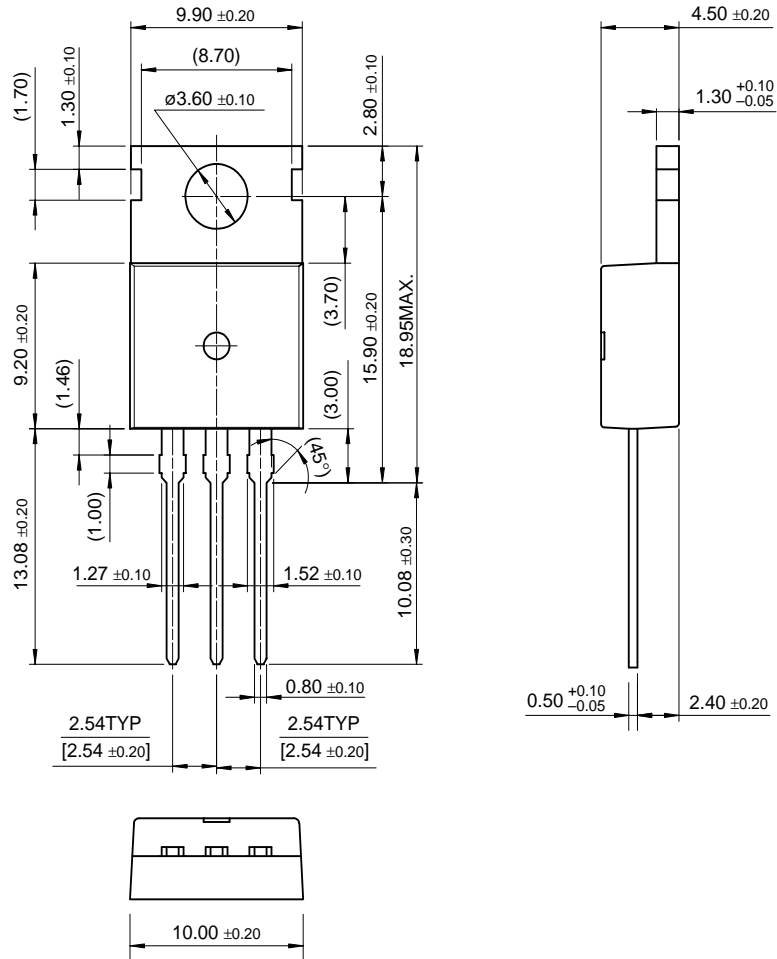


Figure 7. Power Derating

# Package Dimensions

## TO-220



Dimensions in Millimeters

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CROSSVOLT™	POP™	UHC™
E <sup>2</sup> CMOS™	PowerTrench®	VCX™
FACT™	QFET™	
FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
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