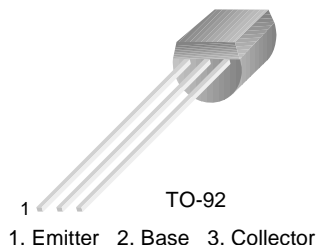


## KSP94

### High Voltage Transistor

- High Collector-Emitter Voltage:  $V_{CE0} = -400V$
- Low Collector-Emitter Saturation Voltage
- Complement to KSP44



### PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-400	V
$V_{CEO}$	Collector-Emitter Voltage	-400	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current	-300	mA
$P_C$	Collector Power Dissipation	625	mW
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	-55~150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = -100\mu A, I_E = 0$	-400			V
$BV_{CES}$	Collector-Emitter Breakdown Voltage	$I_C = -100\mu A, V_{BE} = 0$	-400			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	-6			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = -300V, V_E = 0$			-100	nA
$I_{CES}$	Collector Cut-off Current	$V_{CE} = -400V, V_{BE} = 0V$			-1	$\mu A$
$I_{EBO}$	Emitter Cut-off Current	$V_{BE} = -4V, I_C = 0$			-100	nA
$h_{FE1}$	DC Current Gain	$V_{CE} = -10V, I_C = -1mA$	40			
$h_{FE2}$		$V_{CE} = -10V, I_C = -10mA$	50		300	
$h_{FE3}$		$V_{CE} = -10V, I_C = -50mA$	45			
$h_{FE4}$		$V_{CE} = -10V, I_C = -100mA$	40			
$V_{CE(sat)1}$	Collector-Emitter Saturation Voltage	$I_C = -10mA, I_B = -1mA$			-500	mV
$V_{CE(sat)2}$		$I_C = -50mA, I_B = -5mA$			-750	mV
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -10mA, I_B = -1mA$			-750	mV
$C_{ob}$	Output Capacitance	$V_{CB} = -20V, I_E = 0, f = 1MHz$		7		pF

# Typical Characteristics

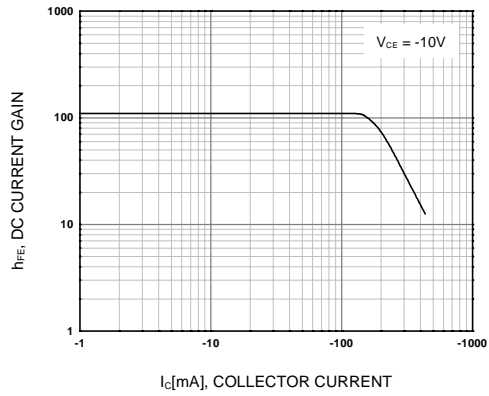


Figure 1. DC current Gain

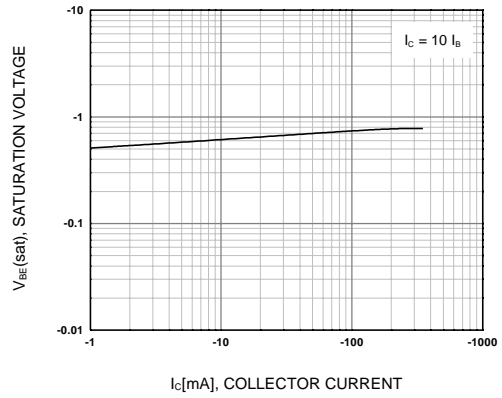


Figure 2. Base-Emitter Saturation Voltage

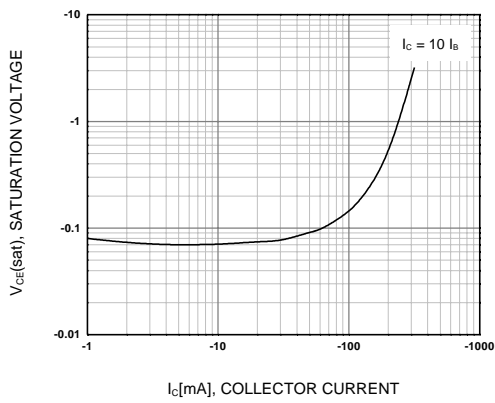


Figure 3. Collector-Emitter Saturation Voltage

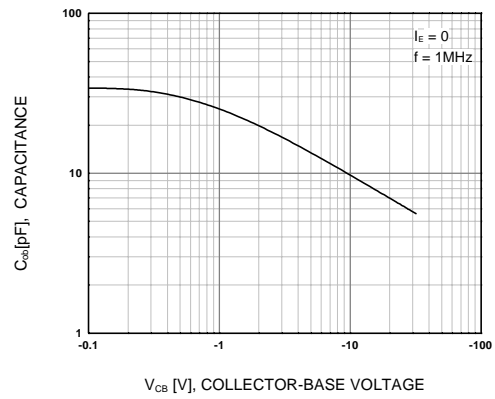


Figure 4. Collector Output Capacitance

# Package Dimensions

KSP94

## TO-92



Dimensions in Millimeters

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CoolFET <sup>TM</sup>	FAST <sup>r</sup> <sup>TM</sup>	MicroFET <sup>TM</sup>	PowerTrench <sup>®</sup>	SuperSOT <sup>TM</sup> -6
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EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
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