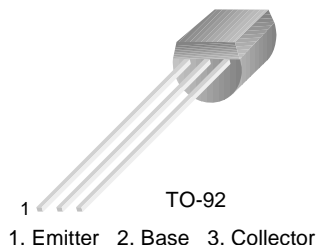


KSP94

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	μA
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

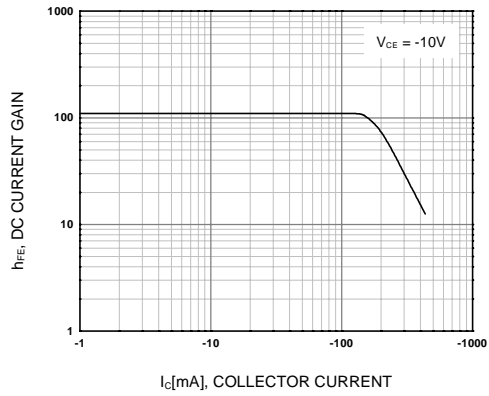


Figure 1. DC current Gain

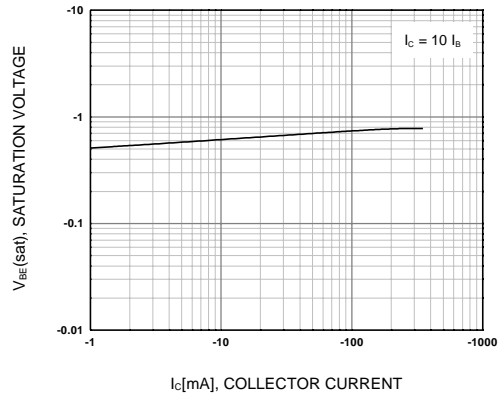


Figure 2. Base-Emitter Saturation Voltage

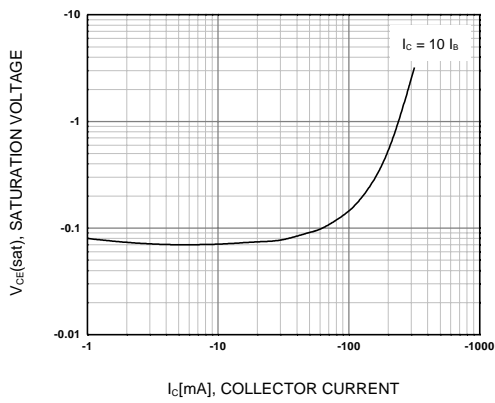


Figure 3. Collector-Emitter Saturation Voltage

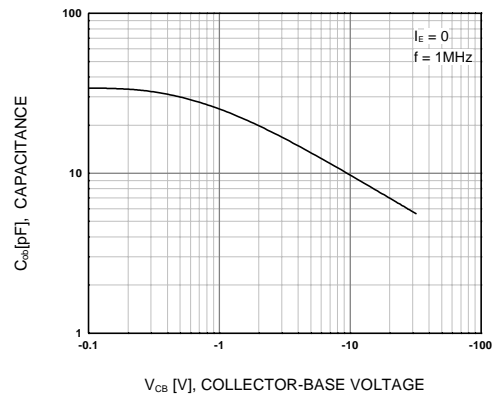


Figure 4. Collector Output Capacitance

Package Dimensions

TO-92



Dimensions in Millimeters

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CROSSVOLT TM	FRFET TM	MicroPak TM	QFET TM	SuperSOT TM -8
DOMET TM	GlobalOptoisolator TM	MICROWIRE TM	QS TM	SyncFET TM
EcoSPARK TM	GTO TM	MSX TM	QT Optoelectronics TM	TinyLogic TM
E ² CMOS TM	HiSeC TM	MSXPro TM	Quiet Series TM	TruTranslation TM
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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
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