

KSP75/76/77

PNP EPITAXIAL SILICON DARLINGTON TRANSISTOR

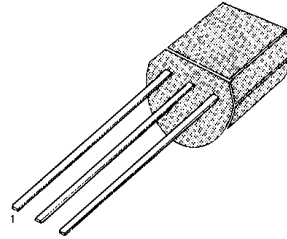
DARLINGTON TRANSISTOR

- Collector-Emitter Voltage: V_{CES} =KSP75: 40V
KSP76: 50V
KSP77: 60V
- Collector Dissipation: $P_C(\max)$ =625mW

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CES}		
:KSP75		-40	V
:KSP76		-50	V
:KSP77		-60	
Emitter-Base Voltage	V_{EBO}	-10	V
Collector Current	I_C	-500	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~150	$^\circ\text{C}$

TO-92



1. Emitter 2. Base 3. Collector

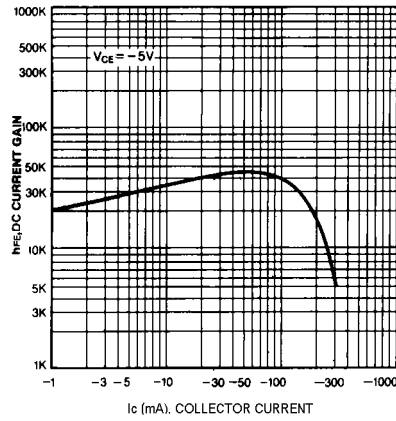
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CEO}	$I_C = -100\mu\text{A}$, $I_B = 0$			V
:KSP75			-40		V
:KSP76			-50		V
:KSP77			-60		V
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -100\mu\text{A}$, $I_E = 0$			V
:KSP75			-40		V
:KSP76			-50		V
:KSP77			-60		V
Collector Cut-off Current	I_{CBO}	$V_{CE} = -30\text{V}$, $I_E = 0$		-100	nA
:KSP75		$V_{CE} = -40\text{V}$, $I_E = 0$		-100	nA
:KSP76		$V_{CE} = -50\text{V}$, $I_E = 0$		-100	nA
:KSP77		$V_{CE} = -10\text{V}$, $I_B = 0$		-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{CE} = -30\text{V}$, $I_E = 0$		-500	nA
Collector Cut-off Current	I_{EBO}	$V_{CE} = -40\text{V}$, $I_E = 0$		-500	nA
:KSP75		$V_{CE} = -50\text{V}$, $I_E = 0$		-500	nA
:KSP76		$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$	10K		
:KSP77		$V_{CE} = -5\text{V}$, $I_C = -100\text{mA}$	10K		
DC Current Gain	h_{FE}	$I_C = -100\text{mA}$, $I_B = -0.1\text{mA}$		-1.5	V
Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$V_{CE} = -5\text{V}$, $I_C = -100\text{mA}$		-2	V
Base-Emitter On Voltage	$V_{BE}(\text{on})$				V

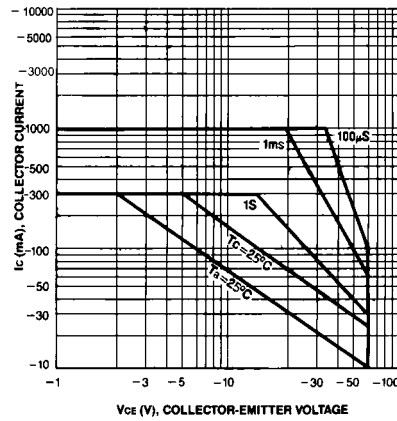
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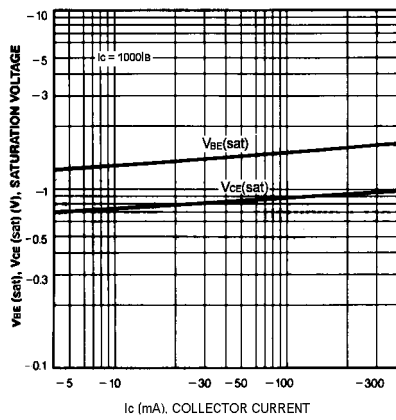
DC CURRENT GAIN



SAFE OPERATING AREA



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



BASE-EMITTER ON VOLTAGE

