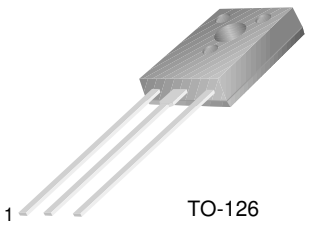
FAIRCHILD
SEMICONDUCTOR®

KSE700/701/702/703

Monolithic Construction With Built-in Base-Emitter Resistors

- High DC Current Gain : h_{FE}= 750 (Min.) @ I_C= -1.5 and -2.0A DC
- Complement to KSE800/801/802/803



TO-126

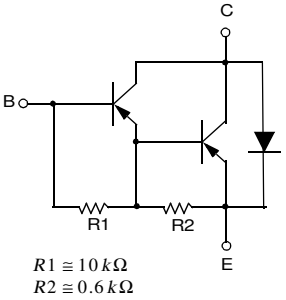
1. Emitter 2.Collector 3.Base

PNP Epitaxial Silicon Darlington Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Sym-bol	Parameter	Value	Units
V_{CBO}	Collector- Base Voltage : KSE700/701	- 60	V
	: KSE702/703	- 80	V
V_{CEO}	Collector-Emitter Voltage : KSE700/701	- 60	V
	: KSE702/703	- 80	V
V_{EBO}	Emitter- Base Voltage	- 5	V
I_C	Collector Current	- 4	A
I_B	Base Current	- 0.1	A
P_C	Collector Dissipation (T_C=25°C)	40	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Equivalent Circuit



$R1 \cong 10k\Omega$
$R2 \cong 0.6k\Omega$

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage				
	: KSE700/701	I_C = - 10mA, I_B = 0	-60		V
	: KSE702/703		-80		V
I_{CEO}	Collector Cut-off Current				
	: KSE700/701	V_{CE} = - 60V, I_B = 0		-100	μA
	: KSE702/703	V_{CE} = - 80V, I_B = 0		-100	μA
I_{CBO}	Collector Cut-off Current	V_{CB} = Rated BV_{CEO}, I_E = 0		-100	μA
		V_{CB} = Rated BV_{CEO}, I_E = 0 @T_C = 100°C		-500	μA
I_{EBO}	Emitter Cut-off Current	V_{BE} = - 5V, I_C = 0		-2	mA
h_{FE}	DC Current Gain				
	: KSE700/702	V_{CE} = - 3V, I_C = - 1.5A	750		
	: KSE701/703	V_{CE} = - 3V, I_C = - 2A	750		
	: ALL DEVICES	V_{CE} = - 3V, I_C = - 4A	100		
V_{CE}(sat)	Collector-Emitter Saturation Voltage				
	: KSE700/702	I_C = - 1.5A, I_B = - 30mA		-2.5	V
	: KSE701/703	I_C = - 2A, I_B = - 40mA		-2.8	V
	: ALL DEVICES	I_C = - 4A, I_B = - 40mA		-3	V
V_{BE}(on)	Base-Emitter On Voltage				
	: KSE700/702	V_{CE} = - 3V, I_C = - 1.5A		-1.2	V
	: KSE701/703	V_{CE} = - 3V, I_C = - 2A		-2.5	V
	: ALL DEVICES	V_{CE} = - 3V, I_C = - 4A		-3	V

Typical Characteristics

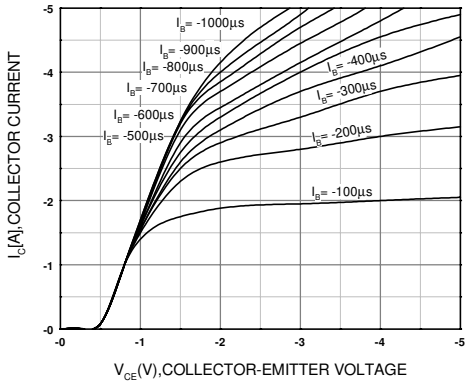


Figure 1. Static Characteristic

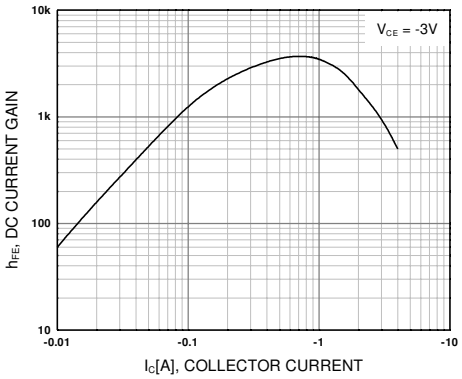


Figure 2. DC current Gain

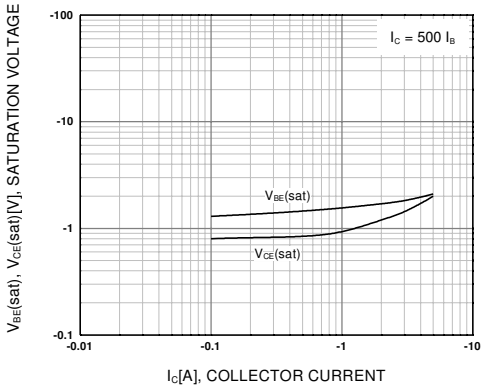


Figure 3. Collector-Emitter Saturation Voltage Base-Emitter Saturation Voltage

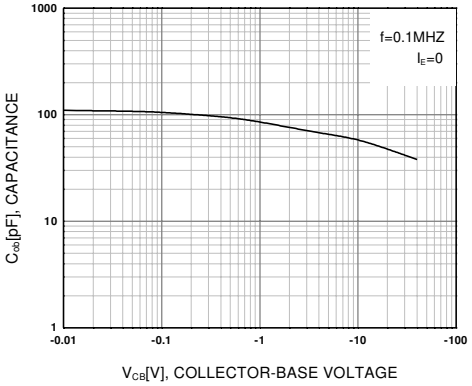


Figure 4. Collector Output Capacitance

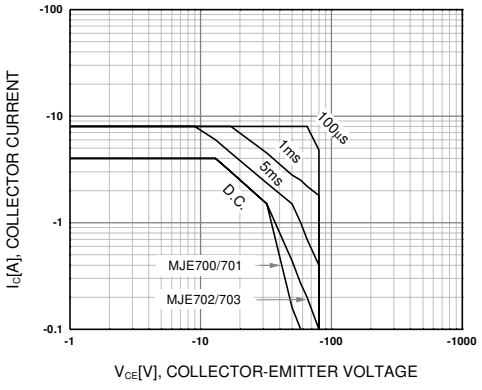


Figure 5. Safe Operating Area

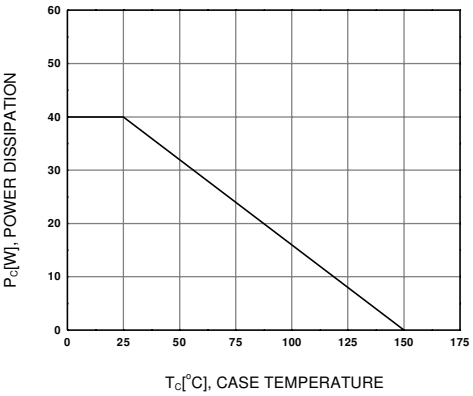


Figure 6. Power Derating

Package Demensions

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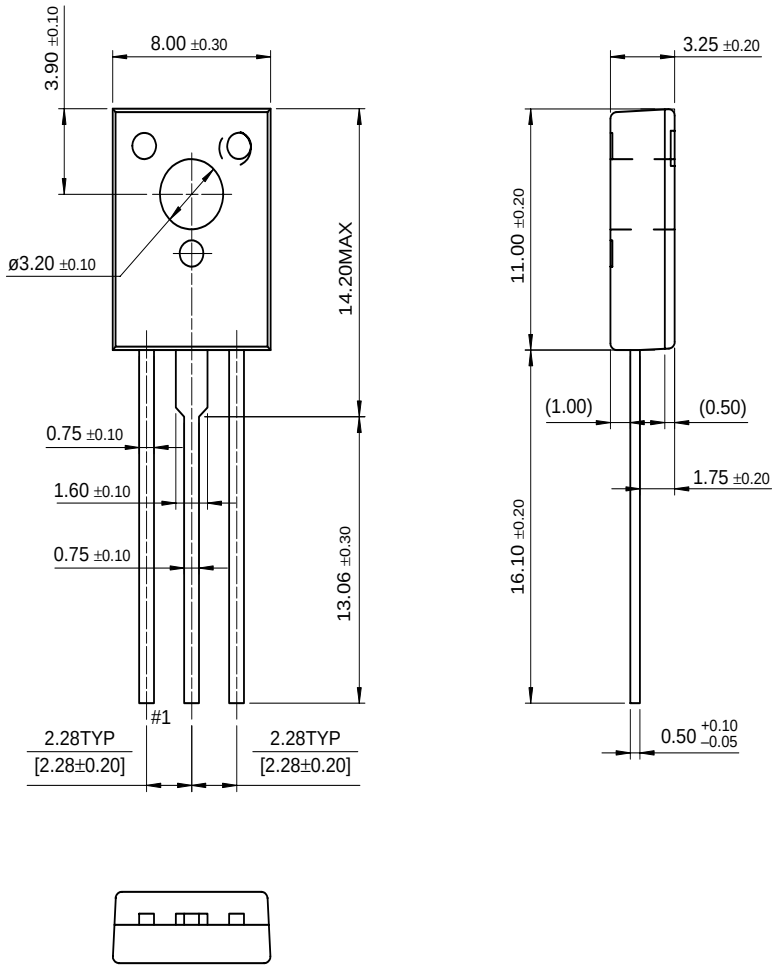

Dimensions in Millimeters

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Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

KSE700
PNP Epitaxial Silicon Darlington Transistor

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSE700STU	Full Production	$0.228	TO-126	3	RAIL
KSE700S	Full Production	$0.228	TO-126	3	BULK

* 1,000 piece Budgetary Pricing

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KSE701

PNP Epitaxial Silicon Darlington Transistor

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KSE701STU	Full Production	$0.228	TO-126	3	RAIL

* 1,000 piece Budgetary Pricing

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PNP Epitaxial Silicon Darlington Transistor

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Product	Product status	Pricing*	Package type	Leads	Packing method
KSE702S	Full Production	$0.276	TO-126	3	BULK
KSE702STU	Full Production	$0.276	TO-126	3	RAIL

* 1,000 piece Budgetary Pricing

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* 1,000 piece Budgetary Pricing

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