Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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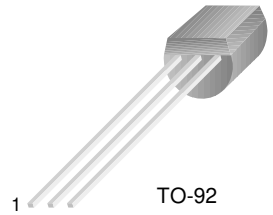
FAIRCHILD
SEMICONDUCTOR®

KSP25/26/27

Darlington Transistor

- Collector-Emitter Voltage: V_{CES}=KSP25: 40V
  KSP26: 50V
  KSP27: 60V
- Collector Power Dissipation: P_C (max) =625mW



TO-92

1. Emitter 2. Base 3. Collector

NPN Epitaxial Silicon Darlington Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CES}	Collector-Emitter Voltage		
	: KSP25	40	V
	: KSP26	50	V
	: KSP27	60	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current	500	mA
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55~150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CES}	Collector-Emitter Breakdown Voltage	I_C=100μA, I_E=0			
	: KSP25		40		V
	: KSP26		50		V
	: KSP27		60		V
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, I_E=0			
	: KSP25		40		V
	: KSP26		50		V
	: KSP27		60		V
I_{CBO}	Collector Cut-off Current				
	: KSP25	V_{CE}=30V, I_E=0		100	nA
	: KSP26	V_{CE}=40V, I_E=0		100	nA
	: KSP27	V_{CE}=50V, I_E=0		100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=10V, I_B=0		100	nA
h_{FE}	* DC Current Gain	V_{CE}=5V, I_C=10mA	10K		
		V_{CE}=5V, I_C=100mA	10K		
V_{CE} (sat)	* Collector-Emitter Saturation Voltage	I_C=100mA, I_B=0.1mA		1.5	V
V_{BE} (on)	* Base-Emitter On Voltage	V_{CE}=5V, I_C=100mA		2	V

* Pulse Test: PW≤300μs, Duty Cycle≤2%

Typical Characteristics

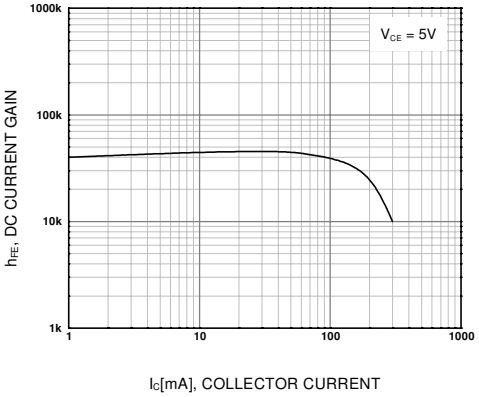


Figure 1. DC current Gain

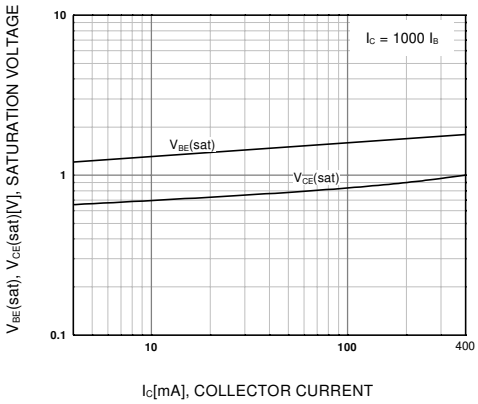


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

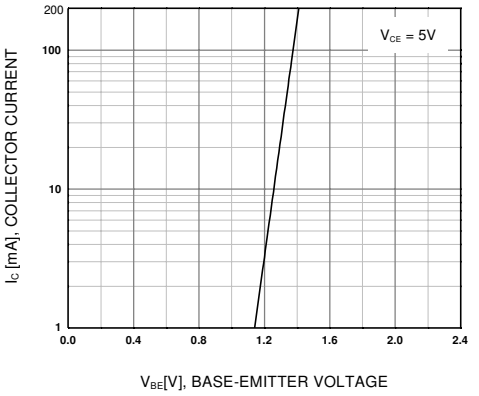


Figure 3. Base-Emitter On Voltage

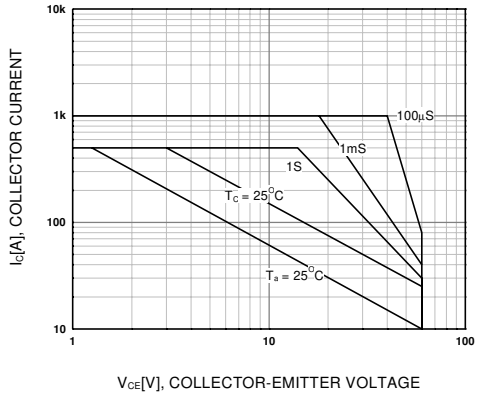
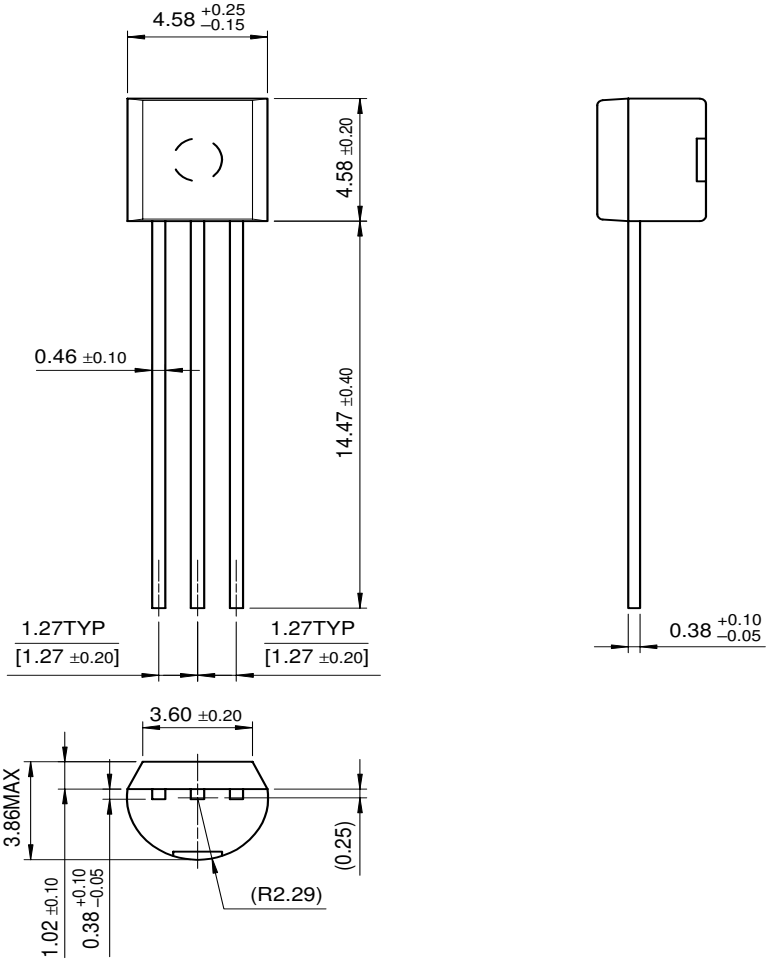


Figure 4. Safe Operating Area

Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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