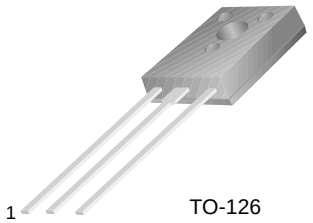
FAIRCHILD
SEMICONDUCTOR TM

KSP44M

High Voltage Transistor

- Collector-Emitter Voltage : BV_{CEO}= 400V
- Collector Dissipation : P_C (Max.) =1.2W



TO-126

1. Emitter 2.Collector 3.Base

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	300	mA
P_C	Collector Dissipation (T_a=25°C)	1.2	W
P_C	Collector Dissipation (T_C=25°C)	10	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, I_E=0	500		V
BV_{CEO}	*Collector-Emitter Breakdown Voltag	I_C=1mA, I_B=0	400		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=100μA, I_C=0	6		V
I_{CBO}	Collector Cut-off Current	V_{CB}=400V, I_E=0		0.1	μA
I_{CES}	Collector Cut-off Current	V_{CE}=400V, I_B=0		0.5	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}=4V, I_C=0		0.1	μA
h_{FE}	*DC Current Gain	V_{CE}=10V, I_C=1mA V_{CE}=10V, I_C=10mA V_{CE}=10V, I_C=50mA V_{CE}=10V, I_C=100mA	40 50 45 40	200	
V_{CE} (sat)	*Collector-Emitter Saturation Voltage	I_C=1mA, I_B=0.1mA I_C=10mA, I_B=1mA I_C=50mA, I_B=5mA		0.4 0.5 0.75	V V V
V_{BE} (sat)	*Base-Emitter Saturation Voltage	I_C=10mA, I_B=1mA		0.75	V
C_{ob}	Output Capacitance	V_{CB}=20V, I_E=0 f=1MHz		7	pF

* Pulse Test: PW≤300μs, Duty Cycle≤2%

Typical Characteristics

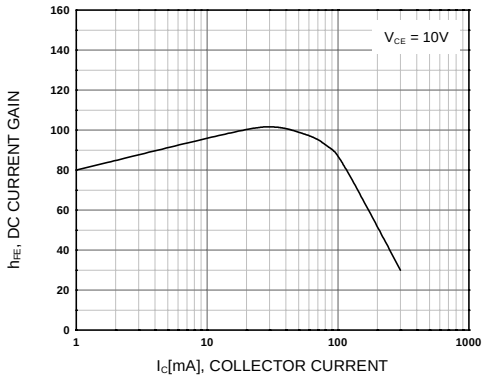


Figure 1. DC current Gain

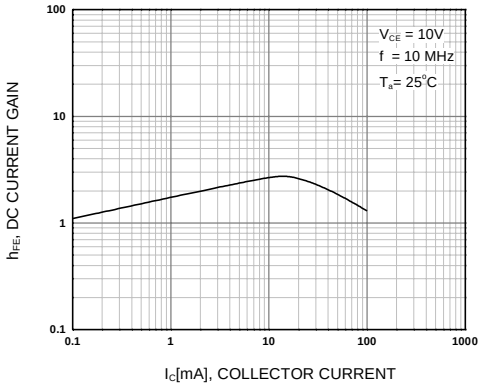


Figure 2. High Frequency Current Gain

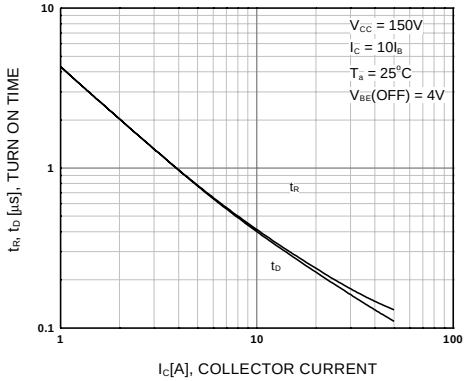


Figure 3. Turn On Switching Times

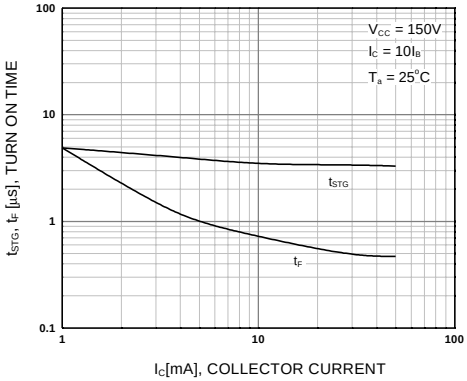


Figure 4. Turn Off Switching Times

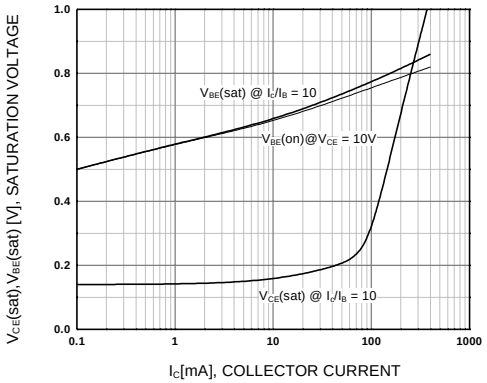


Figure 5. On Voltage

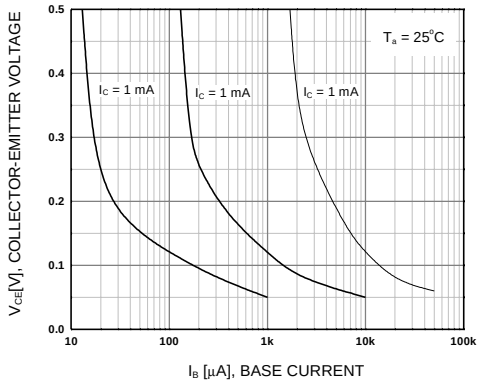


Figure 6. Collector Saturation Region

Typical Characteristics (Continued)

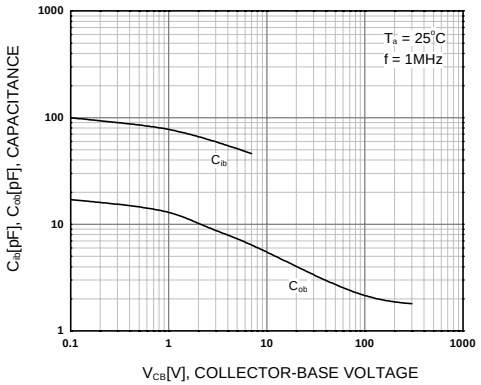


Figure 7. Capacitance

Package Demensions

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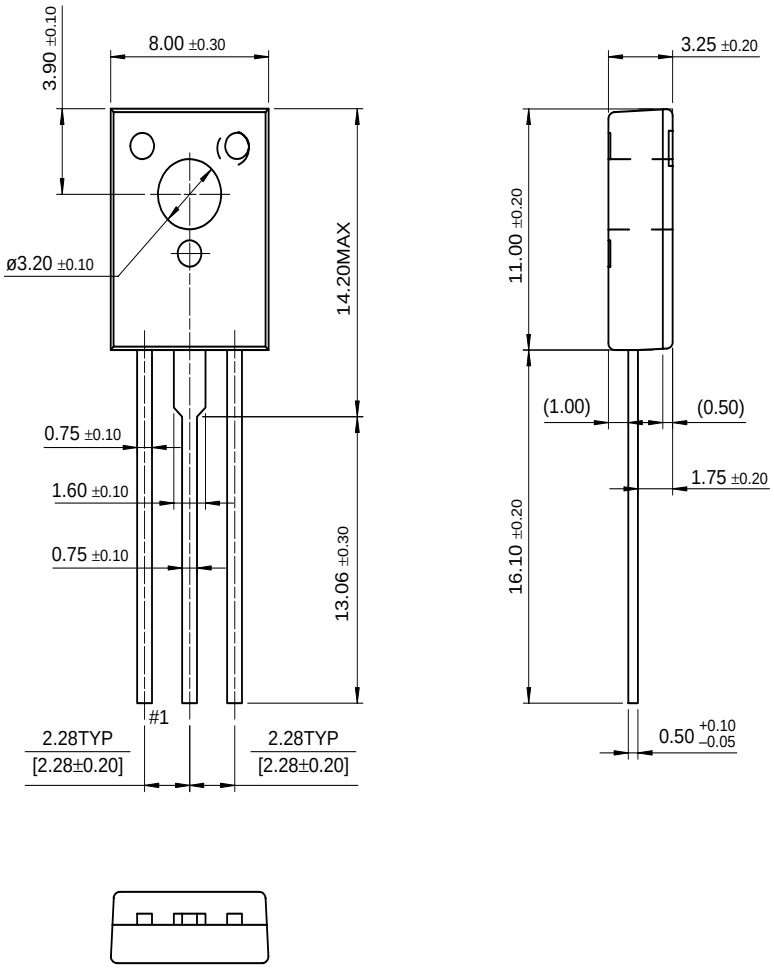

Dimensions in Millimeters

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