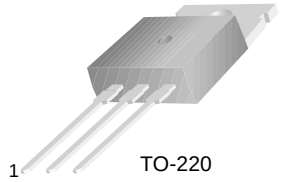
FAIRCHILD
SEMICONDUCTOR®

KSD401

TV Vertical Deflection Output

- Collector-Base Voltage : V_{CBO}=200V
- Collector Current : I_C=2A
- Collector Dissipation : P_C=25W(T_C=25°C)
- Complement to KSB546



TO-220

1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	2	A
P_C	Collector Dissipation (T_C=25°C)	25	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.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = 500uA, I_E = 0	200			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 10mA, I_B = 0	150			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -500uA, I_C = 0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 150V, I_E = 0			50	μA
h_{FE}	DC Current Gain	V_{CE} = 10V, I_C = 0.4A	120		400	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 500mA, I_B = 50mA			1	V
f_T	Current Gain Bandwidth Product	V_{CE} = 10V, I_C = 0.4A		5		MHz

h_{FE} Classification

Classification	Y	G
h_{FE}	120 ~ 240	200 ~ 400

Typical Characteristics

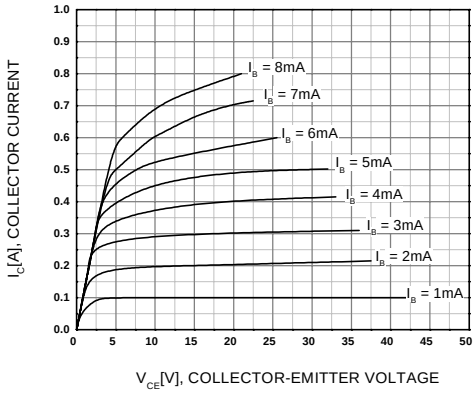


Figure 1. Static Characteristic

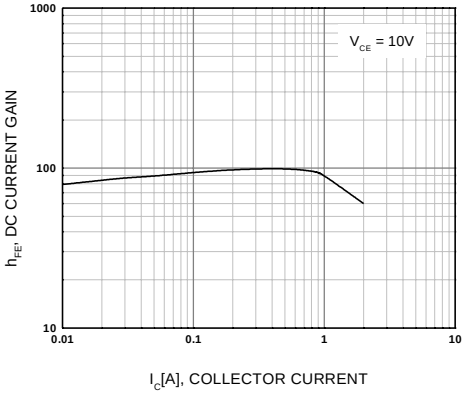


Figure 2. DC current Gain

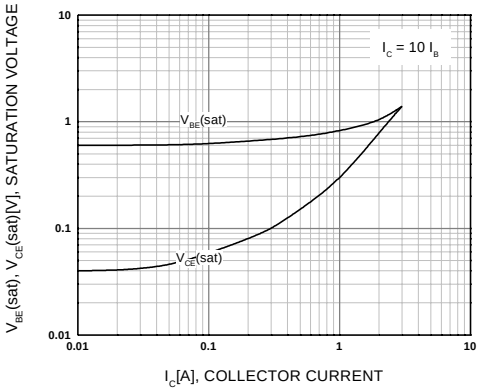


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

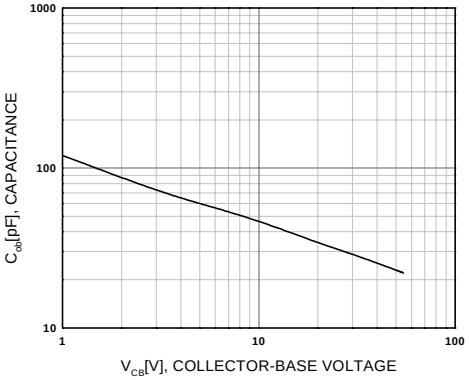


Figure 4. Collector Output Capacitance

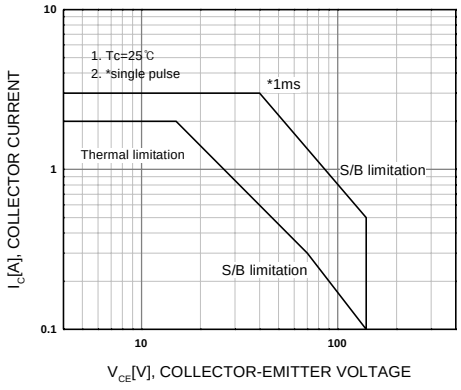


Figure 5. Safe Operating Area

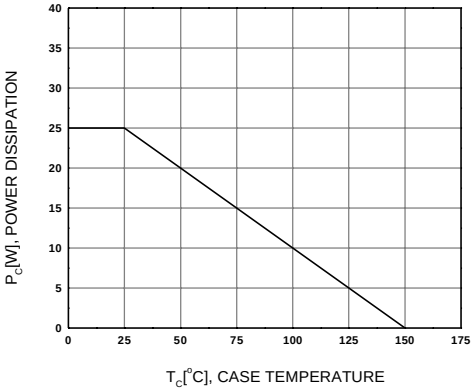
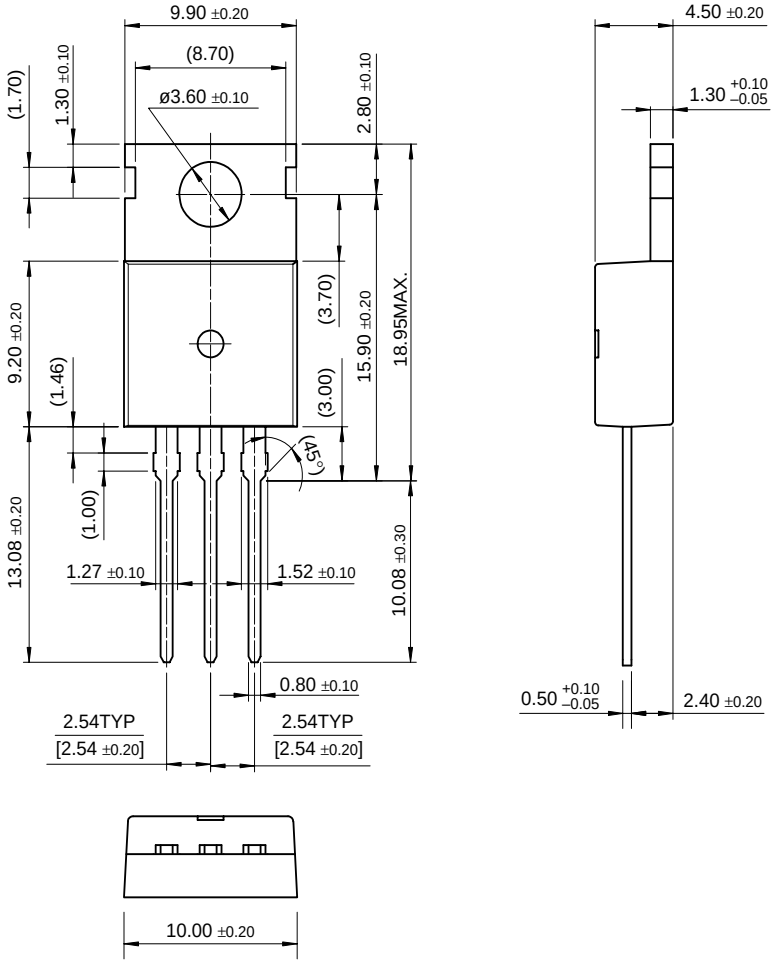


Figure 6. Power Derating

Package Dimensions

TO-220



Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QS™	SyncFET™
DOME™	GlobalOptoisolator™	MICROWIRE™	QT Optoelectronics™	TinyLogic®
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E²CMOS™	HiSeC™	MSXPro™	RapidConfigure™	TruTranslation™
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The Power Franchise™		OPTOPLANAR™	SPM™	
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