FAIRCHILD
SEMICONDUCTOR®

Absolute Maximum Ratings * T_C=25°C unless otherwise noted

Symbol	Parameter		Value	Units
V_{CEO}	Collector-Emitter Voltage		-40	V
V_{CBO}	Collector-Base Voltage		-50	V
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current	- Continuous	-3	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range		- 55 ~ +150	°C

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:
1. These ratings are based on a maximum junction temperature of 150degrees C.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
Off Characteristics					
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = -10mA, I_B = 0	-40		V
BV_{CBO}	Collector-Emitter Breakdown Voltage	I_C = -100µA, I_E = 0	-50		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -100µA, I_C = 0	-5.0		V
I_{CBO}	Collector Cut-off Current	V_{CB} = -30V, I_E = 0 V_{CB} = -30V, I_E			

* Pulse Test: Pulse Width ≤300µs, Duty Cycle ≤ 2.0%

Thermal Characteristics

Typical Characteristics

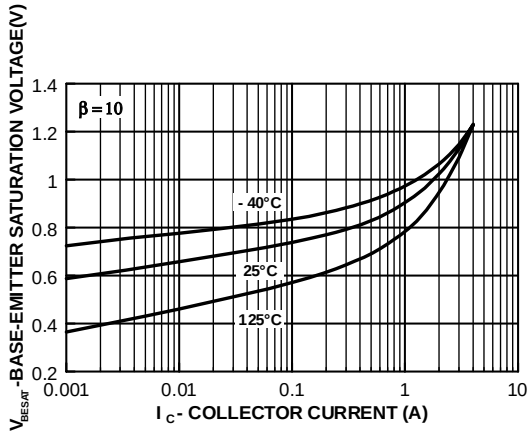


Figure 1. Base-Emitter Saturation Voltage vs Collector Current

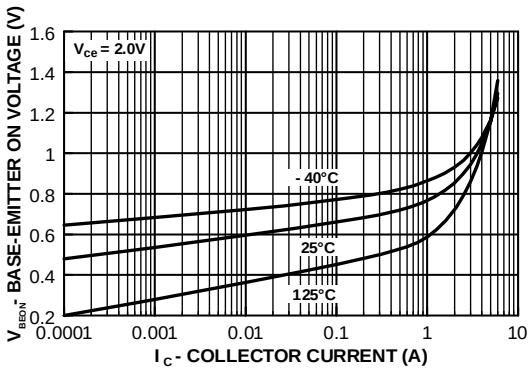


Figure 2. Base-Emitter On Voltage vs Collector Current

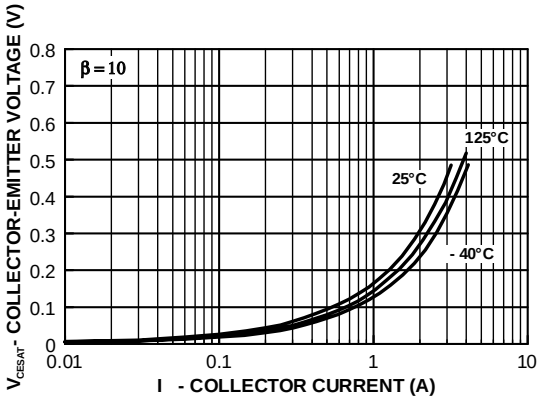


Figure 3. Collector-Emitter Saturation Voltage vs Collector Current

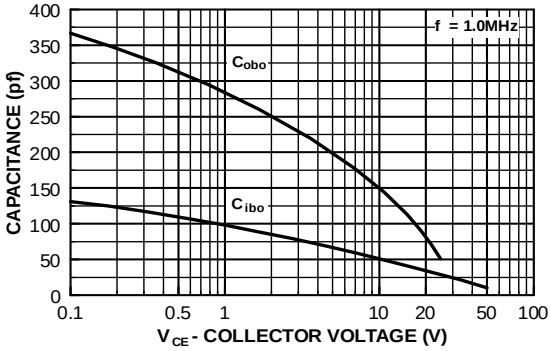


Figure 4. Input/Output Capacitance vs Reverse Bias Voltage

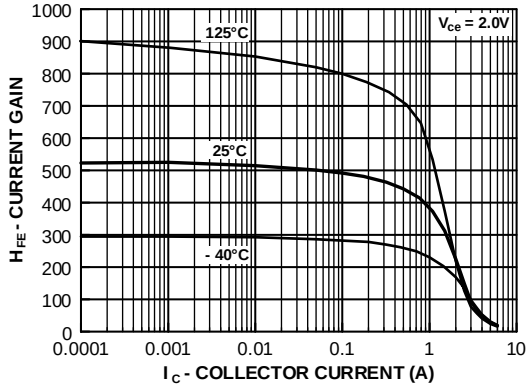


Figure 5. Current Gain vs Collector Current

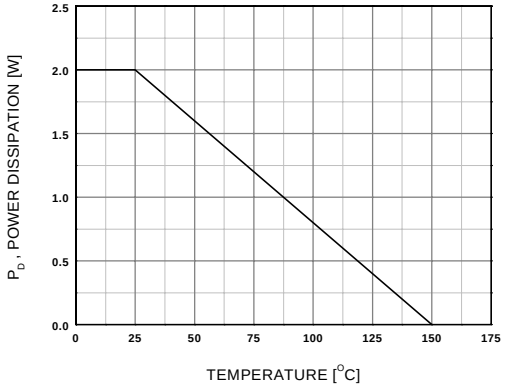
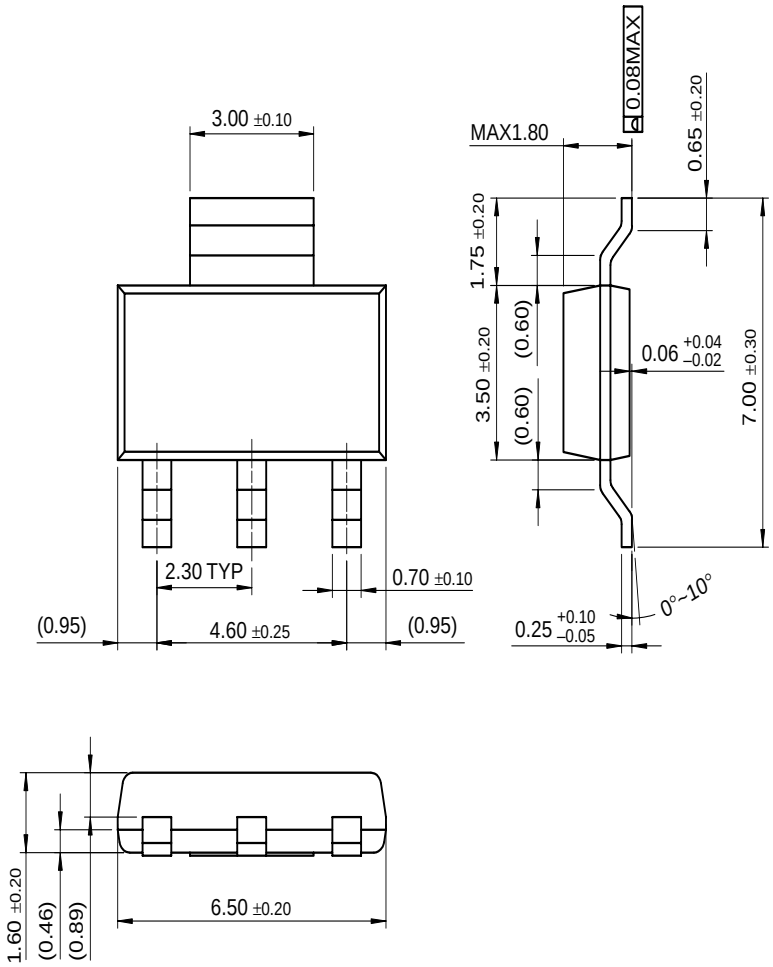


Figure 6. Power Dissipation vs Ambient Temperature

Package Dimensions

SOT-223



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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