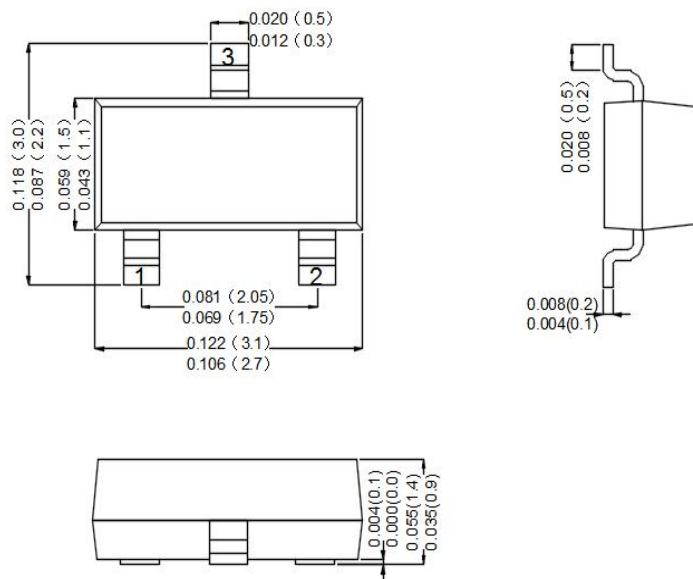


**Features**

- Low current (max. 30 mA)
- Low Voltage (max. 20 V)

SOT-23**Mechanical Data**

- Case: Molded Plastic, SOT-23
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: F2
- Mounting Position : Any.
- Equivalent Circuit:



Dimensions in inches and (millimeters)

Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	30	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	30	mA
Peak collector current	I_{CM}	30	mA
Total power dissipation	P_{tot}	250	mW
Storage temperature	T_{stg}	150	°C
Junction temperature	T_j	150	°C
Operating ambient temperature	T_{amb}	150	°C

Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base Breakdown voltage	BV_{CBO}	$I_C = 100 \mu A, I_E = 0$	30			V
Collector-emitter Breakdown voltage	BV_{CEO}	$I_C = 1 mA, I_B = 0$	20			V
Emitter-base Breakdown voltage	BV_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			V
Collector-base cutoff current	I_{CBO}	$V_{CB} = 20 V, I_E = 0$			100	nA
		$V_{CB} = 20 V, I_E = 0, T_j = 100^\circ C$			10	μA
Emitter-base cutoff current	I_{EBO}	$V_{EB} = 5.0 V, I_C = 0$			100	nA
Forward current transfer ratio	h_{FE}	$V_{CE} = 10 V, I_C = 1.0 mA$	65		225	
Emitter-base voltage	V_{BE}	$V_{CE} = 10 V, I_C = 1.0 mA$	650		740	mV
Transition frequency	f_T	$V_{CE} = 10 V, I_C = 1 mA, f = 100 MHz$		260		MHz
Collector capacitance	C_C	$V_{CB} = 10 V, I_E = 1 mA, f = 1 MHz$		1		pF
Feedback capacitance	C_{re}	$V_{CB} = 10 V, I_C = 0 mA, f = 1 MHz$		0.85		pF



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