TRANSISTOR (PNP)

Plastic-Encapsulate Transistor

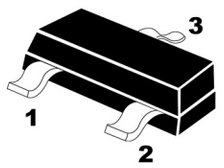
FEATURES

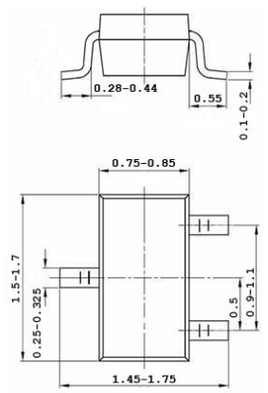
- Reduces Board Space
- High h_{FE}, 210 460 (typical)
- Low $V_{CE(sat)}$ < 0.5V

Marking:FQ,FR,FS

SOT-523

1. BASE
2. EMITTER
3. COLLECTOR





UNIT:mm

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

MAXIMUM RATINGS

Parameter	Symbol	Value	UNITS
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-6.0	V
Collector Current – Continuous	I_C	-100	mA
Power Dissipation	P_D	150	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55-150	℃

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

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-50μA, I_E=0	-60			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-1.0mA, I_B=0	-50			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-50μA, I_C=0	-6.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V, I_E=0			-0.5	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-5.0V, I_C=0			-0.5	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-6.0V, I_C=-1.0mA	120		560	
Collector-Emitter Saturation Voltage[1]	$V_{CE(sat)}$	I_C=-50mA, I_B=-5.0mA			-0.5	V
Transition Frequency	f_T	V_{CE}=-12V, I_C=-2.0mA, f=30MHz		140		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-12V, I_E=0, f=1MHz		3.5		pF

[1] Pulse Test: Pulse Width ≤ 300μS, D.C ≤ 2%

RoHS Pb-free TIP Semiconductor