TRANSISTOR (PNP) **Plastic-Encapsulate Transistor**

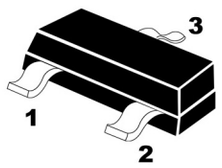
FEATURES

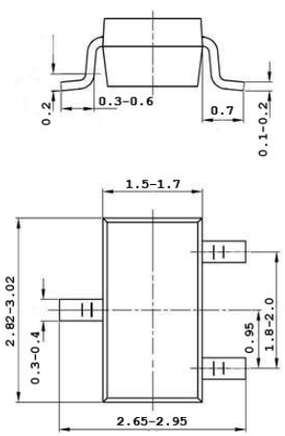
- Excellent h_{FE} linearity
- Complements the 2SC2412K

MARKING: FQ, FR, FS

SOT-23-3L

1. BASE
2. EMITTER
3. COLLECTOR





Unit:mm

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

MAXIMUM RATINGS

Parameters	Symbols	Value	UNITS
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current - Continuous	I_C	150	mA
Collector Dissipation	P_C	200	mW
Junction and Storage Temperature	T_J, T_{stg}	-55-150	℃

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

ELECTRICAL CHARACTERISTICS

Parameters	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=-1μA, I_B=0	-50			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-50μA, I_C=0	-6			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-60V, I_E=0			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-6V, I_C=0			-0.1	μA
DC Current Gain	h_{FE}	V_{CE}=-6V, I_C=-1mA	120		560	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-50mA, I_B=-5mA			-0.5	V
Transition Frequency	f_T	V_{CE}=-12V, I_C=-2mA, f=30MHz		140		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-12V, I_E=0, f=1MHz		4.0	5.0	pF

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Range	120-270	180-390	270-560

RoHS Pb-free TIP Semiconductor