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

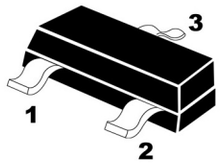
FEATURES

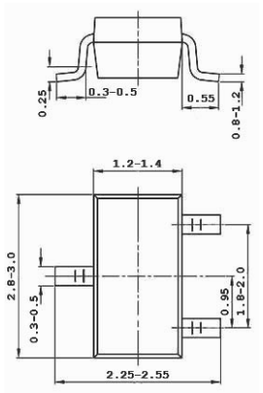
- Large $I_{C\cdot ICMax\cdot}$ = -500mA
- Low $V_{CE(sat)}$ Ideal for low-voltage operation

MARKING: HP, HQ, HR

SOT-23

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}	-40	V
Collector-Emitter Voltage	V_{CEO}	-32	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-500	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 seviceability 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=-100μA, I_E=0	-40			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-32			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-20V, I_E=0			-1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-4V, I_C=0			-1	μA
DC Current Gain	h_{FE}	V_{CE}=-3V, I_C=-10mA	82		390	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA			-0.4	V
Transition Frequency	f_T	V_{CE}=-5V, I_C=-20mA, f=100MHz		200		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		7		pF

CLASSIFICATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390