TRANSISTOR (PNP)

Plastic-Encapsulate Transistor

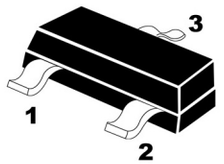
FEATURES

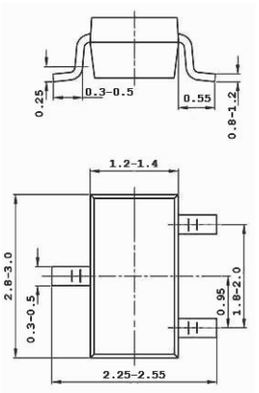
- Power Dissipation

MARKING: 589

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}	-50	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-2	A
Total Device Dissipation	P_D	310	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	403	℃/W
Junction and Storage Temperature	T_J, T_{stg}	-55-150	℃

ELECTRICAL CHARACTERISTICS

Parameters	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-100μA, I_E=0	-50			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-30			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V, I_E=0			-0.1	μA
Collector-Emitter Cut-Off Current	I_{CES}	V_{CES}=-30V			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-4V, I_C=0			-0.1	μA
DC Current Gain	h_{FE1} h_{FE2} h_{FE3} h_{FE4}	V_{CE}=-2V, I_C=-1mA V_{CE}=-2V, I_C=-500mA V_{CE}=-2V, I_C=-1A V_{CE}=-2V, I_C=-2A	100 100 80 40		300	
Collector-Emitter Saturation Voltage	$V_{CE(sat)1}$ $V_{CE(sat)2}$ $V_{CE(sat)3}$	I_C=-500mA, I_B=-50mA I_C=-1A, I_B=-100mA I_C=-2A, I_B=-200mA			-0.25 -0.3 -0.65	V V V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-1A, I_B=-100mA			-1.2	V
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	V_{CE}=-2V, I_C=-1A			-1.1	V
Transition Frequency	f_T	V_{CE}=-5V, I_C=-100mA, f=100MHz	100			MHz
Collector Output Capacitance	C_{ob}	f=1MHz			15	pF

RoHS Pb-free TIP Semiconductor