TRANSISTOR (NPN)

Plastic-Encapsulate Transistor

FEATURES

Power dissipation

P_{CM} : 0.15W (Tamb=25°C)

Collector current

I_{CM} : 0.05A

Collector-base Voltage

$V_{(BR)CBO}$: 40 V

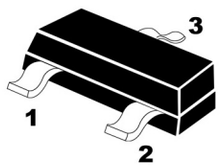
Operating and storage junction temperature range

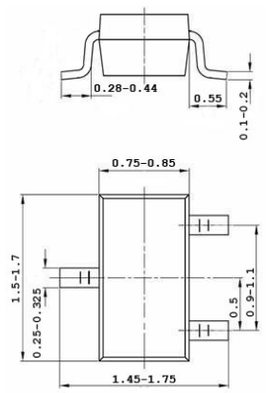
T_J, T_{stg} : -55°C to +150°C

MARKING: AN, AP, AQ

SOT-523

1. BASE
2. EMITTER
3. COLLECTOR





UNIT:mm

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

ELECTRICAL CHARACTERISTICS

Parameters	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=50μA, I_E=0	40			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	25			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=50μA, I_C=0	5			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=24V, I_E=0			0.5	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=3V, I_C=0			0.5	μA
DC Current Gain	$H_{FE(1)}$	V_{CE}=6V, I_C=1mA	56		270	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA			0.3	V
Transition Frequency	F_T	V_{CE}=6V, I_C=1mA, f=100MHz	150			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=6V, I_E=0, f=1MHz			2.2	pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	N	P	Q
Range	56-120	82-180	120-270

RoHS Pb-free TIP Semiconductor