


SOT-323 BIPOLAR TRANSISTORS
TRANSISTOR (PNP)

FEATURES

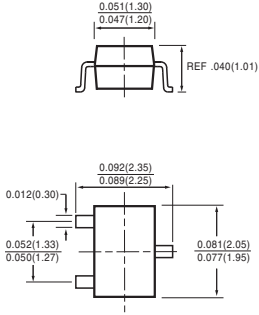
- * Power dissipation
Pcm: 0.2 W (Tamb=25°C)
- * Collector current
Icm: -0.6 A
- * Collector-base voltage
V(BR)CBO: -60 V
- * Operating and storage junction temperature range
Tj,Tstg: -55°C to +150°C

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.006 gram



SOT-323



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified.

MAXIMUM RATINGS (@ TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNITS
Zener Current (see Table "Characteristics")	-	-	-
Max. Steady State Power Dissipation	P _D	200	mW
Max. Operating Temperature Range	T _J	150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Thermal Resistance Junction to Ambient	R θ _{JA}	-	-	625	°C/W
Max. Instantaneous Forward Voltage at I _F = 10mA	V _F	-	-	-	Volts

ELECTRICAL CHARACTERISTICS (@TA=25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ($I_C = -10\text{mA}$, $I_B = 0$)	$V_{(BR)CEO}$	-60	-	Vdc
Collector-Base Breakdown Voltage ($I_C = -10\text{mA}$, $I_E = 0$)	$V_{(BR)CBO}$	-60	-	Vdc
Emitter-Base Breakdown Voltage ($I_E = -10\text{mA}$, $I_C = 0$)	$V_{(BR)EBO}$	-5	-	Vdc
Collector Cutoff Current ($V_{CB} = -35\text{Vdc}$, $I_B = 0$)	I_{CEO}	-	-0.05	μA
Collector Cutoff Current ($V_{CB} = -50\text{Vdc}$, $I_E = 0$)	I_{CBO}	-	-0.01	μA
Emitter Cutoff Current ($V_{EB} = -3.0\text{Vdc}$, $I_C = 0$)	I_{EBO}	-	-0.01	μA

ON CHARACTERISTICS

DC Current Gain ($I_C = -0.1\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -1\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -10\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -150\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -500\text{mA}$, $V_{CE} = -10\text{Vdc}$)	hFE	75	-	-
		100	-	-
		100	-	-
		100	300	-
		50	-	-
Collector-Emitter Saturation Voltage ($I_C = -500\text{mA}$, $I_B = -50\text{mA}$)	$V_{CE(sat)}$	-	-0.6	Vdc
Base-Emitter Saturation Voltage ($I_C = -500\text{mA}$, $I_B = -50\text{mA}$)	$V_{BE(sat)}$	-	-1.2	Vdc

SMALL-SIGNAL CHARACTERISTICS

Current-Gain-Bandwidth Product ($I_C = -50\text{mA}$, $V_{CE} = -20\text{Vdc}$, $f = 100\text{MHz}$)	f_T	200	-	MHz
Input Capacitance ($V_{EB} = -2\text{Vdc}$, $f = 100\text{MHz}$)	C_{ibo}	-	30	pF
Output Capacitance ($I_E = 0$, $V_{CB} = -10\text{Vdc}$, $f = 1\text{MHz}$)	C_{obo}	-	8	pF

SWITCHING CHARACTERISTICS

Turn-On Time	$(V_{CC} = -30\text{Vdc}, V_{BE(OFF)} = -1.5\text{Vdc}, I_C = -150\text{mA}, I_{B1} = -15\text{mA})$	t_{on}	-	50	
Delay Time		t_d	-	10	ns
Rise Time		t_r	-	40	
Turn-Off Time	$(V_{CC} = -30\text{Vdc}, I_C = -150\text{mA}, I_{B1} = I_{B2} = -15\text{mA})$	t_{off}	-	100	
Storage Time		t_s	-	80	ns
Fall Time		t_f	-	30	