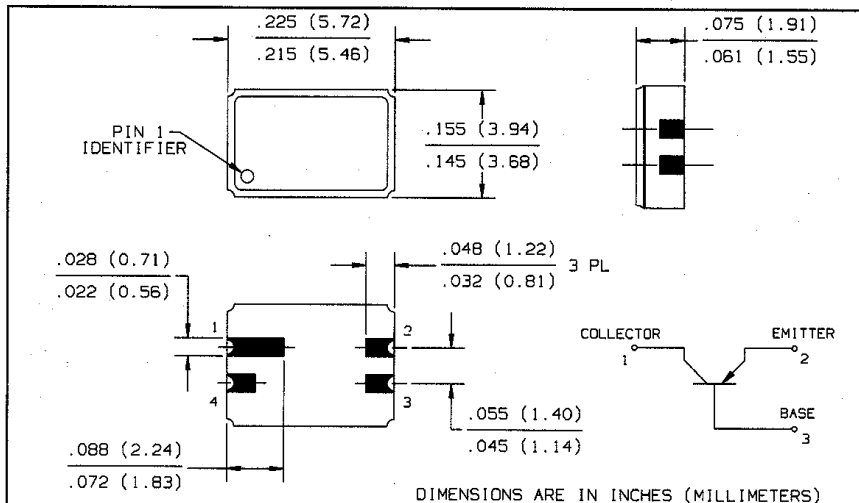
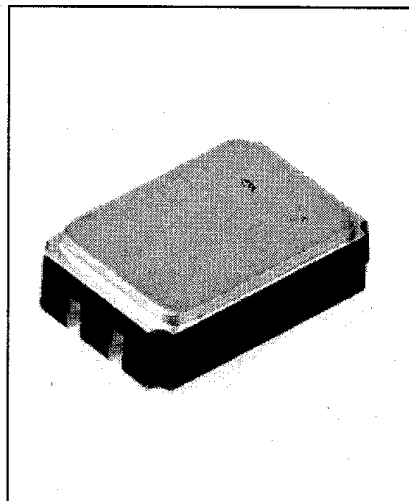


Surface Mount PNP General Purpose Transistor

Type TX, TXV, 2N2907AUA



Features

- Ceramic surface mount package
- Miniature package to minimize circuit board area
- Hermetically sealed
- Qualification per MIL-PRF-19500/291

Description

The TX/TXV2N2907AUA is a hermetically sealed ceramic surface mount general purpose switching transistor. The miniature four pin ceramic package is ideal for designs where board space and device weight are important design considerations. The "UA" suffix denotes the 4 terminal leadless chip carrier package, type "A" per MIL-PRF-19500/291.

Typical screening and lot acceptance tests are provided on page 13-4. The Burn-in condition is $V_{CB} = 30$ V, $P_D = 400$ mW, $T_A = 25^\circ$ C, $t = 80$ hrs. Refer to MIL-PRF-19500/291 for complete requirements. In addition, the TX and TXV versions receive 100% thermal response testing.

When ordering parts without processing, do not use a JAN prefix.

Absolute Maximum Ratings ($T_A = 25^\circ$ C unless otherwise noted)

Collector-Base voltage	60 V
Collector-Emitter Voltage	60 V
Emitter-Base Voltage	5.0 V
Collector Current-Continuous	600 mA
Operating Junction Temperature (T_J)	-65° C to $+200^\circ$ C
Storage Junction Temperature (T_{stg})	-65° C to $+200^\circ$ C
Power Dissipation @ $T_A = 25^\circ$ C	0.4 W
Power Dissipation @ $T_C = 25^\circ$ C	1.16 W ⁽¹⁾
Soldering Temperature (vapor phase reflow for 30 sec.)	215° C
Soldering Temperature (heated collet for 5 sec.)	260° C

Notes:

(1) Derate linearly 6.6 mW/ $^\circ$ C above 25° C.

Types TX, TXV, 2N2907AUA

Electrical Characteristics ($T_A = 25^\circ \text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNIT	TEST CONDITIONS
Off Characteristics					
V _{(BR)CBO}	Collector-Base Breakdown Voltage	60		V	I _C = 10 μA, I _E = 0
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	60		V	I _C = 10 mA, I _B = 0 ⁽²⁾
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	5.0		V	I _E = 10 μA, I _C = 0
I _{CBO}	Collector-Base Cutoff Current		10	nA	V _{CB} = 50 V, I _E = 0
			10	μA	V _{CB} = 50 V, I _E = 0, T _A = 150° C
I _{CES}	Collector-Emitter Cutoff Current		50	nA	V _{CE} = 50 V
I _{EBO}	Emitter-Base Cutoff Current		50	nA	V _{EB} = 4.0 V, I _C = 0
On Characteristics					
h _{FE}	Forward-Current Transfer Ratio	75		-	V _{CE} = 10 V, I _C = 0.1 mA
		100	450	-	V _{CE} = 10 V, I _C = 1.0 mA
		100		-	V _{CE} = 10 V, I _C = 10 mA
		100	300	-	V _{CE} = 10 V, I _C = 150 mA ⁽²⁾
		50		-	V _{CE} = 10 V, I _C = 500 mA ⁽²⁾
		50		-	V _{CE} = 10 V, I _C = 1.0 mA, T _A = -55° C
V _{CE(SAT)}	Collector-Emitter Saturation Voltage		0.40	V	I _C = 150 mA, I _B = 15 mA ⁽²⁾
			1.60	V	I _C = 500 mA, I _B = 50 mA ⁽²⁾
V _{BE(SAT)}	Base-Emitter Saturation Voltage		1.30	V	I _C = 150 mA, I _B = 15 mA ⁽²⁾
			2.60	V	I _C = 500 mA, I _B = 50 mA ⁽²⁾
Small-Signal Characteristics					
h _{fe}	Small Signal Forward Current Transfer Ratio	100		-	V _{CE} = 10 V, I _C = 1.0 mA, f = 1.0 kHz
h _{fe1}	Small Signal Forward Current Transfer Ratio	2.0		-	V _{CE} = 20 V, I _C = 50 mA, f = 100 MHz
C _{obo}	Open Circuit Output Capacitance		8.0	pF	V _{CB} = 10 V, 100 kHz ≤ f ≤ 1.0 MHz
C _{ibo}	Input Capacitance (Output Open Capacitance)		30	pF	V _{EB} = 2.0 V, 100 kHz ≤ f ≤ 1.0 MHz
Switching Characteristics					
t _{on}	Turn-On Time		45	ns	V _{CC} = 30 V, I _C = 150 mA, I _{B1} = 15 mA
t _{off}	Turn-Off Time		300	ns	V _{CC} = 30 V, I _C = 150 mA, I _{B1} = I _{B2} = 15 mA

(2) Pulse Width $\leq 300 \mu\text{s}$, Duty Cycle $\leq 2.0\%$

AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com