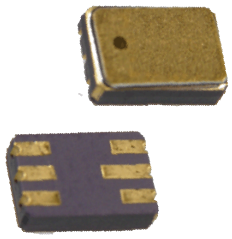
Surface Mount Dual PNP Transistor

2N5796U (TX, TXV)



Features:

- Ceramic 6 pin surface mount package
- Small package to minimize circuit board area
- Hermetically sealed
- Electrical performance similar to dual 2N2907A
- Processed per MIL-PRF-19500/496

Description:

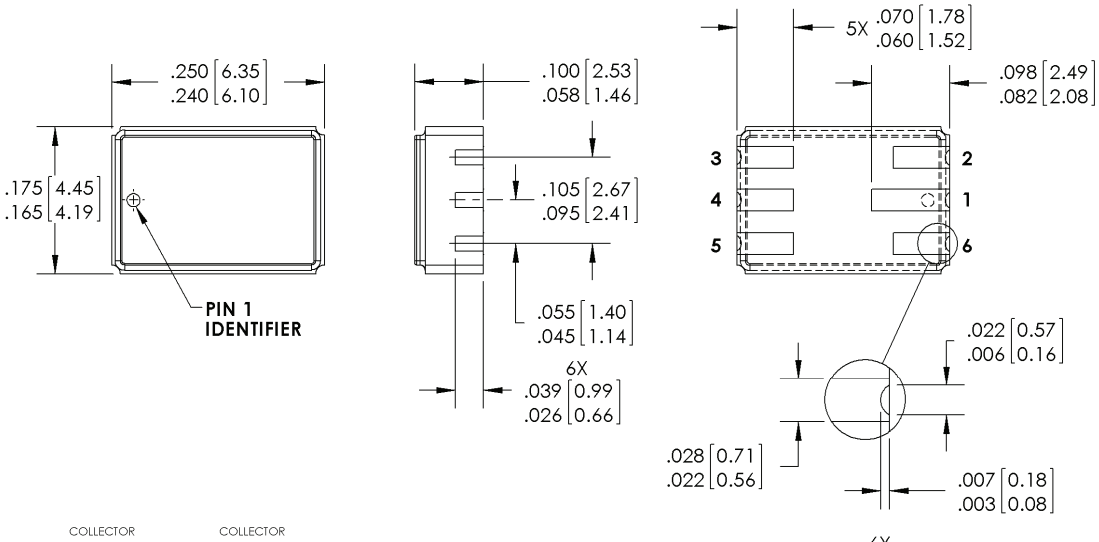
The 2N5796U (TX, TXV) are hermetically sealed, ceramic surface mount devices, consisting of two individual silicon PNP transistors. The six pin ceramic package is ideal for designs where board space and device weight are important design considerations.

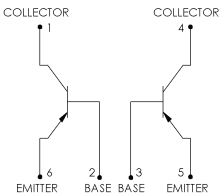
Typical screening and lot acceptance tests are per MIL-PRF-19500/496. The burn-in condition is V_{CB} = 30 V, P_D = 300 mW each transistor, T_A = 25°C. Refer to MIL-PRF-19500/496 for complete requirements.

When ordering parts without processing, do not use the TX or TXV suffix.

Applications:

- General switching
- Amplification
- Signal processing
- Radio transmission
- Logic gates





DIMENSIONS ARE IN INCHES [MM]

Pin #	LED	Pin #	Transistor
3	Base	2	Base
4	Collector	1	Collector
5	Emitter	6	Emitter

OPTEK Technology, Inc.
1645 Wallace Drive, Carrollton, TX 75006|Ph: +1 972 323 2200
www.optekinc.com | www.ttelectronics.com

Surface Mount Dual PNP Transistor

2N5796U (TX, TXV)

Electrical Specifications

Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)	
Collector-Emitter Voltage	60 V
Collector-Base Voltage	60 V
Emitter-Base Voltage	5 V
Collector Current-Continuous	600 mA
Operating Junction Temperature (T_J)	-65° C to +200 °C
Storage Junction Temperature (T_{stg})	-65° C to +200° C
Power Dissipation @ T_A = 25°C	0.5 W
Power Dissipation @ Tc = 25° C	0.6 W(1)
Soldering Temperature (vapor phase reflow for 30 seconds)	215° C
Soldering Temperature (heated collet for 5 seconds)	260° C

Electrical Characteristics (T_A = 25° C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS	TEST CONDITIONS
OFF CHARACTERISTICS					
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	75			I_C = 10 µA
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	60		V	I_C = 10 mA(1)
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	5		V	I_E = 10 µA
I_{CBO1}	Collector-Base Cutoff Current		10	nA	V_{CB} = 50 V
I_{CBO2}	Collector-Base Cutoff Current		10	µA	V_{BC} = 50 V, T_A = 150°C
I_{EBO}	Emitter-Base Cutoff Current		100	nA	V_{EB} = 3 V
h_{FE1}	Forward-Current Transfer Ratio	75		-	V_{CE} = 10 V, I_C = 100 µA
h_{FE2}		100		-	V_{CE} = 10 V, I_C = 1.0 mA
h_{FE3}		100		-	V_{CE} = 10 V, I_C = 10 mA(1)
h_{FE4}		100	300	-	V_{CE} = 10 V, I_C = 150 mA(1)
h_{FE5}		50		-	V_{CE} = 10 V, I_C = 300 mA(1)
h_{FE6}		50		-	V_{CE} = 1.0 V, I_C = 150 mA(1)
h_{FE7}		40		-	V_{CE} = 10 V, I_C = 150 mA, T_A = -55° C(1)

Note:
1. Pulsed Test: Pulse Width = 300 µs ± 50, 1-2 % Duty Cycle

OPTEK Technology, Inc.
1645 Wallace Drive, Carrollton, TX 75006|Ph: +1 972 323 2200
www.optekinc.com | www.ttelectronics.com

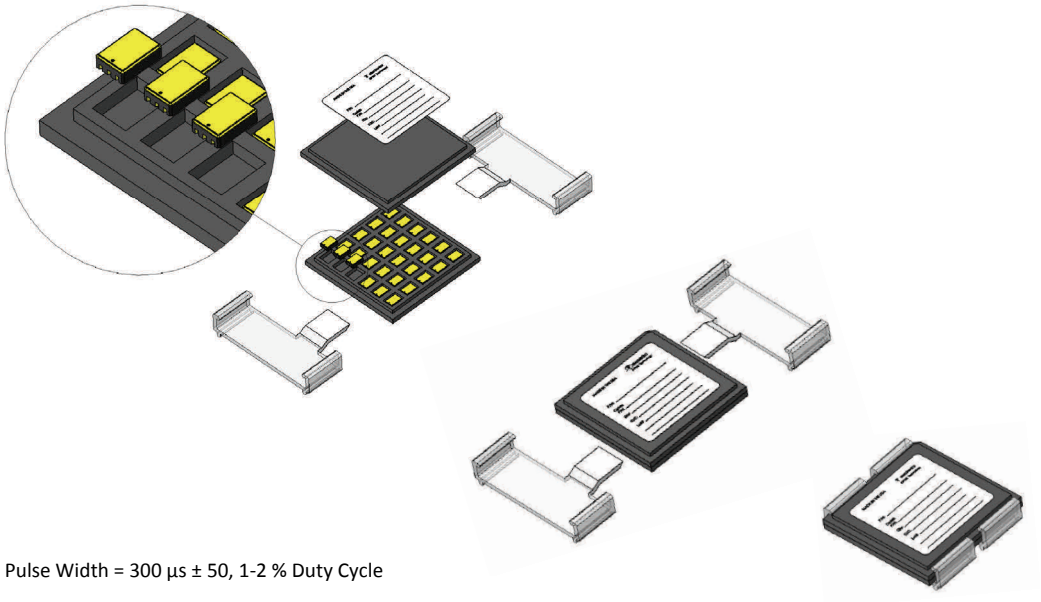
Surface Mount Dual PNP Transistor

2N5796U (TX, TXV)

Electrical Characteristics (T_A = 25° C unless otherwise noted)					
SYMBOL	**PARAMETER**	**MIN**	**MAX**	**UNITS**	**TEST CONDITIONS**
Off Characteristics continued					
$V_{CE(SAT)1}$	Collector-Emitter Saturation Voltage		0.4	V	I_C = 150 mA, I_B = 15 mA[1]
$V_{CE(SAT)2}$	Collector-Emitter Saturation Voltage		1.6	V	I_C = 500 mA, I_B = 50 mA[1]
$V_{BE(SAT)1}$	Base-Emitter Saturation Voltage		1.3	V	I_C = 150 mA, I_B = 15 mA[1]
$V_{BE(SAT)1}$	Base-Emitter Saturation Voltage		2.6	V	I_C = 500 mA, I_B = 50 mA[1]
h_{fe}	Magnitude of Small-Signal Short-Circuit Forward Current Transfer Ratio	2	10		V_{CE} = 20 V, I_C = 20 mA, f = 100 MHZ
C_{obo}	Open Circuit Output Capacitance		8	pF	V_{CB} = 10 V, I_E = 0, 100 kHZ ≤ f ≤ 1 MHz
C_{ibo}	Input Capacitance (output open)		25	pF	V_{EB} = 2.0 V, I_E = 0, 100 kHZ ≤ f ≤ 1 MHz
t_{on}	Turn-on Time		50	ns	V_{CC} = 30 V, I_C = 150 mA, I_{B1} = 15 mA, PW = 200 ns
t_{off}	Turn-off Time		140	ns	V_{CC} = 30 V, I_C = 150 mA, I_{B1} = I_{B2} = 15 mA, PW = 200 ns

Standard Packaging:

Waffle Pack



Note:
1. Pulsed Test: Pulse Width = 300 µs ± 50, 1-2 % Duty Cycle

OPTEK Technology, Inc.
1645 Wallace Drive, Carrollton, TX 75006|Ph: +1 972 323 2200
www.optekinc.com | www.ttelectronics.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TT Electronics:

2N5796U