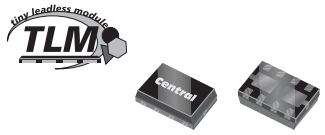
CTLT5551-M832D

SURFACE MOUNT
DUAL, HIGH VOLTAGE
GENERAL PURPOSE
NPN SILICON TRANSISTORS



Top View Bottom View

TLM832D CASE

• Device is ***Halogen Free*** by design

APPLICATIONS

• General purpose high voltage amplifier applications.

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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLT5551-M832D is a Dual NPN General Purpose, High Voltage Amplifier Transistor packaged in the small, thermally efficient, 3x2mm Tiny Leadless Module (TLM™) surface mount case. These devices are designed for applications where small size, operational efficiency, and low energy consumption are the prime requirements.

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FEATURES

• Dual High Voltage Transistors (V_{CBO}=180V MAX)
• Low Leakage Current (I_{CBO}=50nA MAX @ V_{CB}=120V)
• Low $V_{CE(SAT)}$ (0.2V MAX @ I_C=50mA)
• Small TLM 3x2mm Leadless Surface Mount Package

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6.0	V
Continuous Collector Current	I_C	600	mA
Power Dissipation (Note 1)	P_D	1.65	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	76	°C/W

ELECTRICAL CHARACTERISTICS PER TRANSISTOR: (T_A=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=120V		50	nA
I_{CBO}	V_{CB}=120V, T_A=100°C		50	µA
I_{EBO}	V_{EB}=4.0V		50	nA
BV_{CBO}	I_C=100µA	180		V
BV_{CEO}	I_C=1.0mA	160		V
BV_{EBO}	I_E=10µA	6.0		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.15	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA		0.20	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		1.00	V
$V_{BE(SAT)}$	I_C=50mA, I_B=5.0mA		1.00	V
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	80		
h_{FE}	V_{CE}=5.0V, I_C=10mA	80	250	
h_{FE}	V_{CE}=5.0V, I_C=50mA	30		
f_T	V_{CE}=10V, I_C=10mA, f=100MHz	100	300	MHz

Notes: (1) FR-4 Epoxy PCB with copper mounting pad area of 54mm^2

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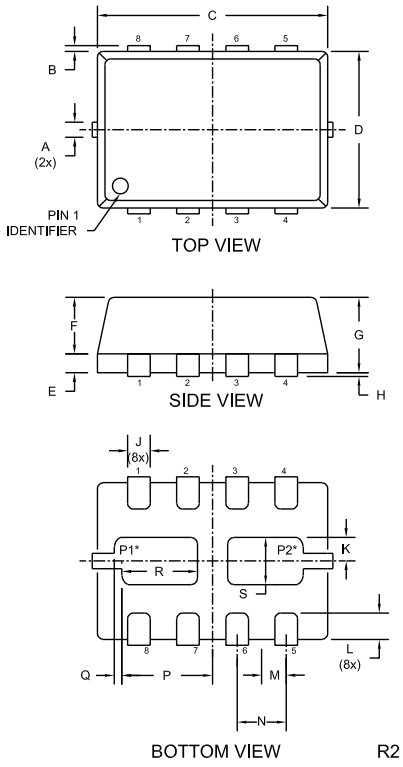
ELECTRICAL CHARACTERISTICS PER TRANSISTOR - Continued:

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		6.0	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=1.0MHz		20	pF
h_{fe}	V_{CE}=10V, I_C=1.0mA, f=1.0kHz	50	200	
NF	V_{CE}=5.0V, I_C=200μA, R_S=10Ω, f=10Hz to 15.7kHz		8.0	dB

TLM832D CASE - MECHANICAL OUTLINE

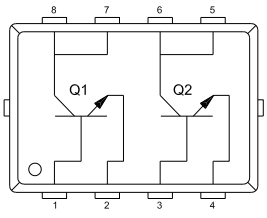


DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.007	0.012	0.170	0.300
B	-	0.005	-	0.125
C	0.114	0.122	2.900	3.100
D	0.075	0.083	1.900	2.100
E	0.006	0.010	0.150	0.250
F	0.026	0.030	0.650	0.750
G	0.031	0.039	0.800	1.000
H	0.000	0.002	0.000	0.050
J	0.009	0.013	0.240	0.340
K	0.006	0.014	0.160	0.360
L	0.008	0.018	0.200	0.450
M	0.013		0.325	
N	0.026		0.650	
P	0.040	0.048	1.010	1.210
Q	0.004		0.100	
R	0.032	0.040	0.820	1.020
S	0.017	0.025	0.430	0.630

TLM832D (REV: R2)

* Note:
- Exposed pad P1 common to pins 7 and 8
- Exposed pad P2 common to pins 5 and 6

PIN CONFIGURATION



LEAD CODE:
1) Base Q1
2) Emitter Q1
3) Base Q2
4) Emitter Q2
5) Collector Q2
6) Collector Q2
7) Collector Q1
8) Collector Q1

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R2 (19-February 2010)