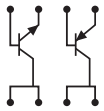
CYT5554D

SURFACE MOUNT
DUAL, ISOLATED
COMPLEMENTARY
HIGH VOLTAGE
NPN/PNP SILICON TRANSISTORS

SUPERmini™



SOT-228 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CYT5554D type consists of one (1) NPN high voltage silicon transistor and one (1) complementary PNP high voltage silicon transistor packaged in an epoxy molded SOT-228 surface mount case. Manufactured by the epitaxial planar process, this SUPERmini™ device is ideal for high voltage applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**	**NPN (Q1)**	**PNP (Q2)**	**UNITS**
Collector-Base Voltage	V_{CBO}	250	250	V
Collector-Emitter Voltage	V_{CEO}	220	220	V
Emitter-Base Voltage	V_{EBO}	6.0	7.0	V
Continuous Collector Current	I_C	600	600	mA
Power Dissipation	P_D	2.0		W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150		°C
Thermal Resistance	Θ_{JA}	62.5		°C/W

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

		NPN (Q1)		**PNP (Q2)**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=120V	-	50	-	50	nA
I_{CBO}	V_{CB}=120V, T_A=100°C	-	50	-	50	µA
I_{EBO}	V_{BE}=3.0V	-	-	-	50	nA
I_{EBO}	V_{BE}=4.0V	-	50	-	-	nA
BV_{CBO}	I_C=100µA	250	-	250	-	V
BV_{CEO}	I_C=1.0mA	220	-	220	-	V
BV_{EBO}	I_E=10µA	6.0	-	7.0	-	V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA	-	75	-	100	mV
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA	-	100	-	150	mV
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA	-	1.00	-	1.00	V
$V_{BE(SAT)}$	I_C=50mA, I_B=5.0mA	-	1.00	-	1.00	V
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	120	-	100	-	
h_{FE}	V_{CE}=5.0V, I_C=10mA	120	300	100	300	
h_{FE}	V_{CE}=5.0V, I_C=50mA	75	-	75	-	
h_{FE}	V_{CE}=10V, I_C=150mA	25	-	25	-	

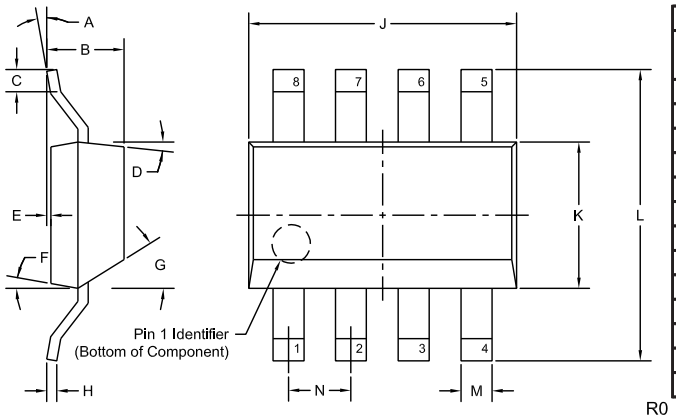
CYT5554D

SURFACE MOUNT
DUAL, ISOLATED
COMPLEMENTARY
HIGH VOLTAGE
NPN/PNP SILICON TRANSISTORS

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

		NPN (Q1)		PNP (Q2)		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
f_T	V_{CE}=10V, I_C=10mA, f=100MHz	100	300	100	300	MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz	-	6.0	-	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	40	200	
NF	V_{CE}=5.0V, I_C=200μA, R_S=10Ω, f=10Hz to 15.7kHz	-	8.0	-	8.0	dB

SOT-228 CASE - MECHANICAL OUTLINE

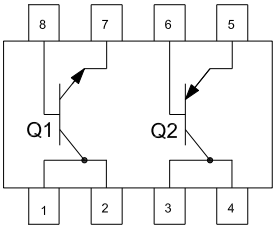


DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	---	0.075	---	1.90
C	0.018	---	0.45	---
D	4°	10°	4°	10°
E	0.000	0.004	0.00	0.10
F	4°	10°	4°	10°
G	36°	45°	36°	45°
H	0.010		0.25	
J	0.248	0.264	6.30	6.70
K	0.130	0.146	3.30	3.70
L	0.264	0.287	6.70	7.30
M	0.027	0.030	0.68	0.76
N	0.060		1.53	

R0

SOT-228 (REV: R0)

PIN CONFIGURATION



LEAD CODE:

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

MARKING: FULL PART NUMBER