THE DATASHEET OF

CMLT5088E TR PBFREE

www.win-source.net 0086-755-83957316

CMLT5078E NPN/PNP
CMLT5087E PNP/PNP
CMLT5088E NPN/NPN

ENHANCED SPECIFICATION
SURFACE MOUNT SILICON DUAL TRANSISTORS



ENHANCED E SPECIFICATION

SOT-563 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLT5078E, CMLT5087E, and CMLT5088E are surface mount silicon transistors with enhanced specifications designed for applications requiring high gain and low noise.

MARKING CODES: CMLT5078E: L78
CMLT5087E: L87
CMLT5088E: L88 or **88**

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
♦ **Collector-Base Voltage**	V_{CBO}	**50**	**V**
♦ **Collector-Emitter Voltage**	V_{CEO}	**50**	**V**
♦ **Emitter-Base Voltage**	V_{EBO}	**5.0**	**V**
Continuous Collector Current	I_C	100	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

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

			TYP			
SYMBOL	**TEST CONDITIONS**	**MIN**	**NPN**	**PNP**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=20V				50	nA
I_{EBO}	V_{EB}=3.0V				50	nA
♦ **BV_{CBO}**	**I_C=100µA**	**50**	**135**	**150**		**V**
♦ **BV_{CEO}**	**I_C=1.0mA**	**50**	**65**	**105**		**V**
♦ **BV_{EBO}**	**I_E=100µA**	**5.0**	**8.7**	**7.5**		**V**
♦ **$V_{CE(SAT)}$**	**I_C=10mA, I_B=1.0mA**		**45**	**50**	**100**	**mV**
♦♦ **$V_{CE(SAT)}$**	**I_C=100mA, I_B=10mA**		**110**	**225**	**400**	**mV**
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA		700	700	800	mV
♦ **h_{FE}**	**V_{CE}=5.0V, I_C=0.1mA**	**300**	**430**	**390**	**900**	
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	300	435	380		
♦ **h_{FE}**	**V_{CE}=5.0V, I_C=10mA**	**300**	**430**	**350**		
♦♦ **h_{FE}**	**V_{CE}=5.0V, I_C=100mA**	**50**	**125**	**75**		
♦ **f_T**	**V_{CE}=5.0V, I_C=500µA, f=20MHz**	**100**				**MHz**
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz				4.0	pF
C_{ib}	V_{BE}=0.5V, I_C=0, f=1.0MHz				15	pF
h_{fe}	V_{CE}=5.0V, I_C=1.0mA, f=1.0kHz	350			1400	
NF	V_{CE}=5.0V, I_C=100µA, R_S=10kΩ, f=10Hz to 15.7kHz				3.0	dB

♦ Enhanced specification
♦♦ Additional Enhanced specification

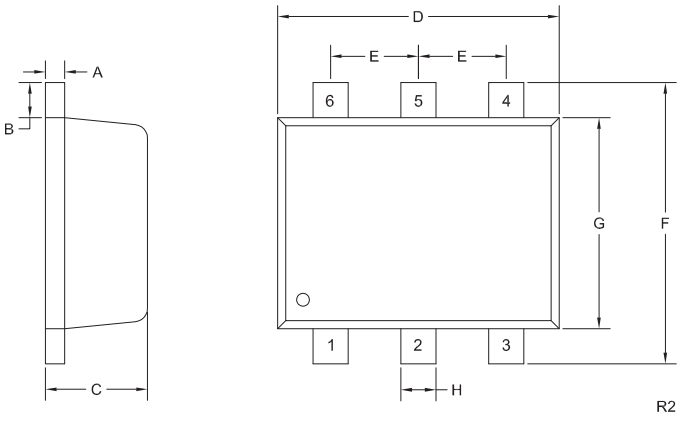
R6 (29-June 2015)

CMLT5078E NPN/PNP
CMLT5087E PNP/PNP
CMLT5088E NPN/NPN

ENHANCED SPECIFICATION

SURFACE MOUNT SILICON
DUAL TRANSISTORS

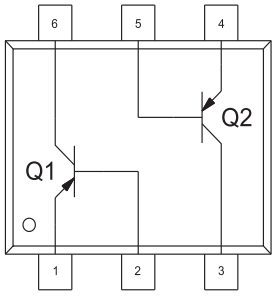
SOT-563 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
H	0.006	0.012	0.15	0.30

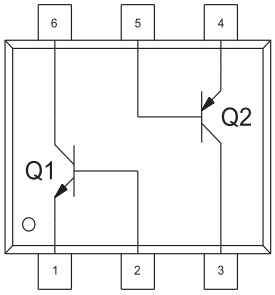
SOT-563 (REV: R2)

PIN CONFIGURATIONS



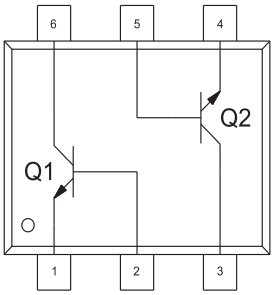
CMLT5087E

MARKING CODE: L87



CMLT5078E

MARKING CODE: L78



CMLT5088E

MARKING CODE: L88 or **88**

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

R6 (29-June 2015)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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