CMKT5078 NPN/PNP
CMKT5087 PNP/PNP
CMKT5088 NPN/NPN

SURFACE MOUNT
DUAL SILICON TRANSISTORS

ULTRAmini™



SOT-363 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The Central Semiconductor CMKT5078 (one each NPN and PNP complementary), CMKT5087 (two single PNP), and CMKT5088 (two single NPN) are combinations of transistors in a space saving SOT-363 ULTRAmini™ package, designed for applications requiring high gain and low noise.

CMKT5078 MARKING CODE: K78
CMKT5087 MARKING CODE: K87
CMKT5088 MARKING CODE: K88

FEATURES:

- ULTRAmini™ space saving package
- Two NPN (5088) or Two PNP (5087) Transistors in a single package
- One NPN (5088) and one PNP (5087) complementary Transistor in a single package

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**	**NPN**	**PNP**	**UNITS**
Collector-Base Voltage	V_{CBO}	35	50	V
Collector-Emitter Voltage	V_{CEO}	30	50	V
Emitter-Base Voltage	V_{EBO}	4.5	3.0	V
Continuous Collector Current	I_C	50		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)

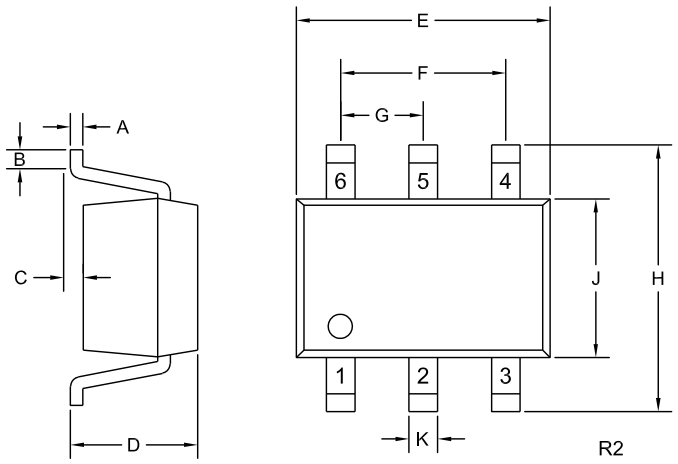
		NPN		**PNP**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=10V	-	-	-	10	nA
I_{CBO}	V_{CB}=35V	-	-	-	50	nA
I_{CBO}	V_{CB}=20V	-	50	-	-	nA
I_{EBO}	V_{EB}=3.0V	-	50	-	-	nA
BV_{CBO}	I_C=100μA	35	-	50	-	V
BV_{CEO}	I_C=1.0mA	30	-	50	-	V
BV_{EBO}	I_E=100μA	4.5	-	3.0	-	V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA	-	0.50	-	0.30	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA	-	0.80	-	0.85	V
h_{FE}	V_{CE}=5.0V, I_C=0.1mA	300	900	250	800	
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	350	-	250	-	
h_{FE}	V_{CE}=5.0V, I_C=10mA	300	-	250	-	
f_T	V_{CE}=5.0V, I_C=500μA, f=20MHz	50	-	40	-	MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz	-	4.0	-	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	250	900	
NF	V_{CE}=5.0V, I_C=100μA, R_S=10kΩ, f=10Hz to 15.7kHz	-	3.0	-	2.0	dB

R4 (13-January 2010)

CMKT5078 NPN/PNP
CMKT5087 PNP/PNP
CMKT5088 NPN/NPN

SURFACE MOUNT
DUAL SILICON TRANSISTORS

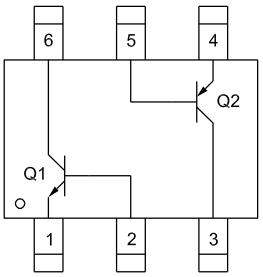
SOT-363 CASE - MECHANICAL OUTLINE



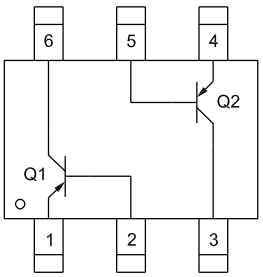
DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.004	0.010	0.10	0.25
B	0.005	-	0.12	-
C	0.000	0.004	0.00	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.075	0.091	1.90	2.30
J	0.043	0.055	1.10	1.40
K	0.006	0.012	0.15	0.30

SOT-363 (REV: R2)

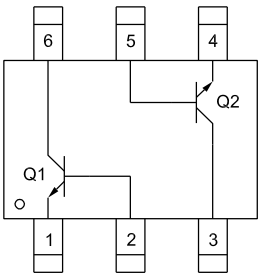
PIN CONFIGURATIONS



CMKT5078
(NPN/PNP)
MARKING CODE: K78



CMKT5087
(PNP/PNP)
MARKING CODE: K87



CMKT5088
(NPN/NPN)
MARKING CODE: K88

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

R4 (13-January 2010)

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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centralsemi.com

Worldwide Field Representatives:
www.centralsemi.com/wwreps

Worldwide Distributors:
www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms