

CMKT3920

SURFACE MOUNT SILICON
DUAL, SMALL SIGNAL
NPN SWITCHING TRANSISTOR

ULTRAmⁱⁿⁱ™



SOT-363 CASE

Central
Semiconductor Corp.

www.centrasemi.com

DESCRIPTION:

The Central Semiconductor CMKT3920 (two single NPN transistors) is a dual combination in a space saving SOT-363 ULTRAmⁱⁿⁱ™ package, designed for small signal general purpose amplifier and switching applications.

MARKING CODE: K20

APPLICATIONS:

- Load switching
- Small signal amplification
- Lamp and relay drivers
- MOSFET gate drive

FEATURES:

- ULTRAmⁱⁿⁱ™ space saving package containing two 3920 NPN transistors

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V _{CBO}	60	V
V _{CEO}	50	V
V _{EBO}	7.0	V
I _C	200	mA
P _D	350	mW
T _J , T _{stg}	-65 to +150	°C
θ _{JA}	357	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =60V		100	nA
I _{EBO}	V _{EB} =7.0V		100	nA
BV _{CBO}	I _C =50μA	60		V
BV _{CEO}	I _C =1.0mA	50		V
BV _{EBO}	I _E =50μA	7.0		V
V _{CE(SAT)}	I _C =50mA, I _B =5.0mA		0.4	V
V _{BE(SAT)}	I _C =50mA, I _B =5.0mA		0.95	V
h _{FE}	V _{CE} =6.0V, I _C =1.0mA	120	560	
f _T	V _{CE} =20V, I _C =10mA, f=100MHz	300		MHz
C _{ob}	V _{CB} =12V, I _E =0, f=1.0MHz		3.5	pF

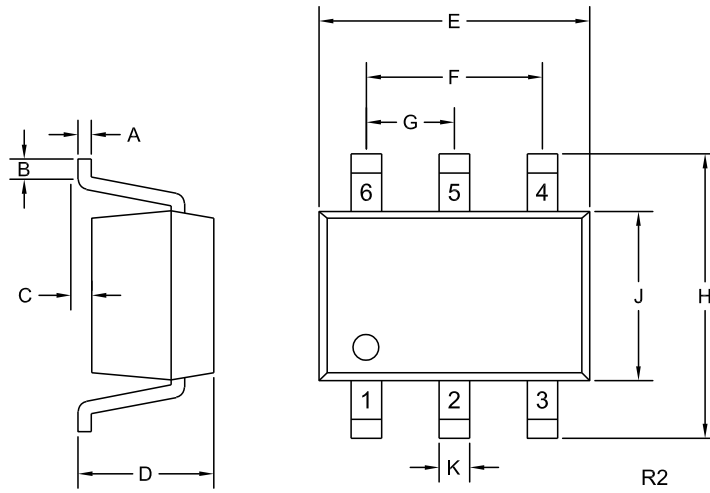
R1 (5-January 2012)

CMKT3920

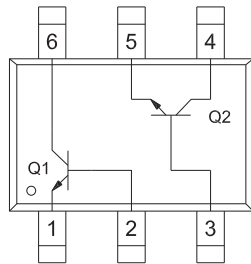
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SOT-363 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

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

MARKING CODE: K20

DIMENSIONS

SYMBOL	INCHES		MILLIMETERS	
	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)

R1 (5-January 2012)

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

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