

CMKT2907A
CMKT2907AG

**SURFACE MOUNT
DUAL PNP SILICON TRANSISTORS**

ULTRAmTMini



SOT-363 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMKT2907A and CMKT2907AG each consist of two individual isolated 2907A PNP silicon transistors, manufactured by the epitaxial planar process and epoxy molded in an SOT-363 surface mount package. This ULTRAmTMini device has been designed for small signal general purpose and switching applications.

- The CMKT2907AG is **Halogen Free** by design.

MARKING CODES:

CMKT2907A: K07

CMKT2907AG: K7G

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

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

SYMBOL

V_{CBO} 60
 V_{CEO} 60
 V_{EBO} 5.0
 I_C 600
 P_D 350
 T_J, T_{stg} -65 to +150
 Θ_{JA} 357

UNITS

V
V
V
mA
mW
 $^\circ\text{C}$
 $^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS PER TRANSISTOR: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=50\text{V}$		10	nA
I_{CBO}	$V_{CB}=50\text{V}, T_A=125^\circ\text{C}$		10	μA
I_{CEV}	$V_{CE}=30\text{V}, V_{BE}=0.5\text{V}$		50	nA
BV_{CBO}	$I_C=10\mu\text{A}$	60		V
BV_{CEO}	$I_C=10\text{mA}$	60		V
BV_{EBO}	$I_E=10\mu\text{A}$	5.0		V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.4	V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1.6	V
$V_{BE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		1.3	V
$V_{BE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		2.6	V
h_{FE}	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$	75		
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{mA}$	100		
h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	100		
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100	300	
h_{FE}	$V_{CE}=10\text{V}, I_C=500\text{mA}$	50		

R4 (13-January 2010)

CMKT2907A
CMKT2907AG

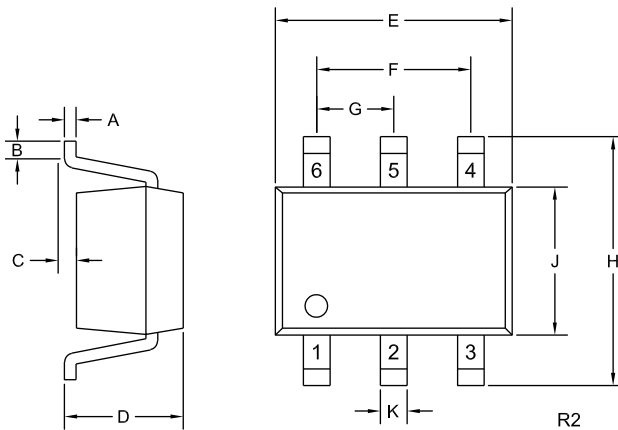
SURFACE MOUNT
DUAL PNP SILICON TRANSISTORS



ELECTRICAL CHARACTERISTICS PER TRANSISTOR - Continued:

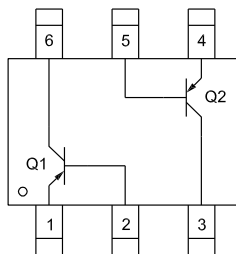
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	$V_{CE}=20V$, $I_C=50mA$, $f=100MHz$	200		MHz
C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1.0MHz$		8.0	pF
C_{ib}	$V_{BE}=2.0V$, $I_C=0$, $f=1.0MHz$		30	pF
t_{on}	$V_{CC}=30V$, $V_{BE}=0.5V$, $I_C=150mA$, $I_{B1}=15mA$		45	ns
t_d	$V_{CC}=30V$, $V_{BE}=0.5V$, $I_C=150mA$, $I_{B1}=15mA$		10	ns
t_r	$V_{CC}=30V$, $V_{BE}=0.5V$, $I_C=150mA$, $I_{B1}=15mA$		40	ns
t_{off}	$V_{CC}=6.0V$, $I_C=150mA$, $I_{B1}=I_{B2}=15mA$		100	ns
t_s	$V_{CC}=6.0V$, $I_C=150mA$, $I_{B1}=I_{B2}=15mA$		80	ns
t_f	$V_{CC}=6.0V$, $I_C=150mA$, $I_{B1}=I_{B2}=15mA$		30	ns

SOT-363 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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)



LEAD CODE:

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

MARKING CODES:

CMKT2907A: K07
CMKT2907AG: K7G

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).

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