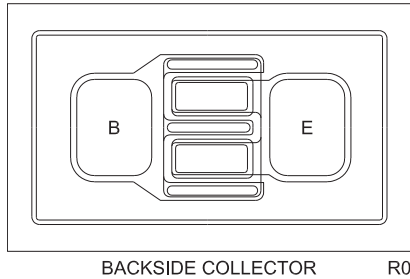


CP396V-2N2369A

NPN - Saturated Switch Transistor Die

0.2 Amp, 40 Volt

The CP396V-2N2369A is a silicon NPN transistor designed for high speed saturated switching applications.



MECHANICAL SPECIFICATIONS:

Die Size	14.2 x 8.7 MILS
Die Thickness	7.1 MILS
Base Bonding Pad Size	2.9 x 3.7 MILS
Emitter Bonding Pad Size	2.9 x 3.7 MILS
Top Side Metalization	Al – 13,000Å
Back Side Metalization	Au-As – 9,000Å
Scribe Alley Width	1.96 MILS
Wafer Diameter	5 INCHES
Gross Die Per Wafer	139,524

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage	V _{CBO}	40	V
Collector-Emitter Voltage	V _{CES}	40	V
Collector-Emmitter Voltage	V _{CEO}	15	V
Emitter-Base Voltage	V _{EBO}	4.5	V
Continuous Collector Current	I _C	200	mA
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +200	°C

SYMBOL

UNITS

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _{CBO}	V _{CB} =20V		400	nA
BV _{CBO}	I _C =10μA	40		V
BV _{CES}	I _C =10μA	40		V
BV _{CEO}	I _C =10mA	15		V
BV _{EBO}	I _E =10μA	4.5		V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		200	mV
V _{CE(SAT)}	I _C =30mA, I _B =3.0mA		250	mV
V _{CE(SAT)}	I _C =100mA, I _B =10mA		500	mV
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA	700	850	mV
V _{BE(SAT)}	I _C =30mA, I _B =3.0mA		1.15	V
V _{BE(SAT)}	I _C =100mA, I _B =10mA		1.6	V
h _{FE}	V _{CE} =1.0V, I _C =10mA	40	120	
h _{FE}	V _{CE} =0.4V, I _C =30mA	30		
h _{FE}	V _{CE} =1.0V, I _C =100mA	20		
f _T	V _{CE} =10V, I _C =10mA, f=100MHz	500		MHz
C _{ob}	V _{CB} =5.0V, I _E =0, f=140kHz		4.0	pF
t _{on}	[V _{CC} =3.0V, I _C =10mA, I _{B1} =3.0mA I _{B2} =1.5mA]		12	ns
t _{off}			18	ns

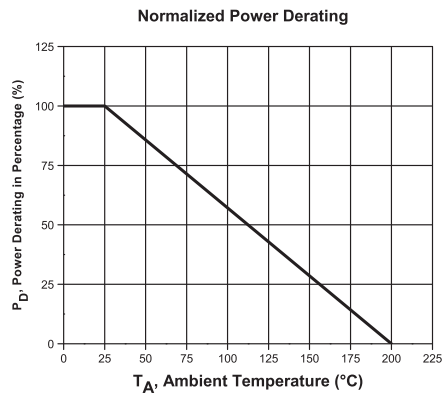
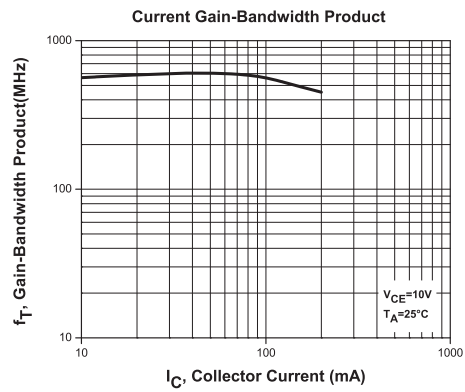
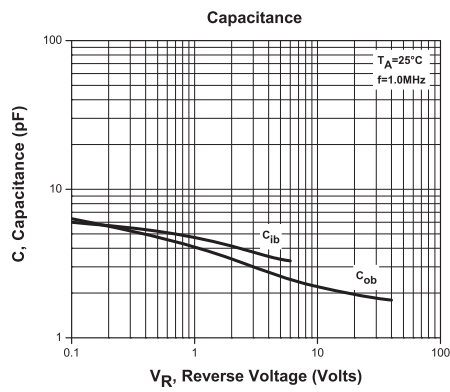
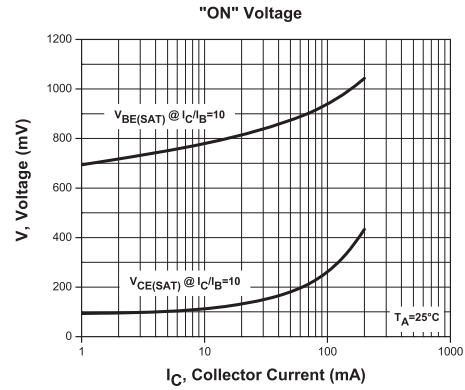
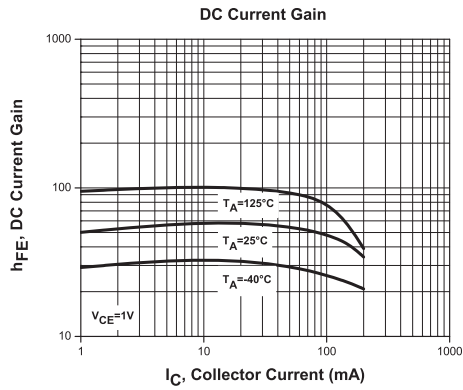
PACKING OPTIONS:

- CP396V-2N2369A-CT: Singulated die in waffle pack; 700 die per tray.
- CP396V-2N2369A-WN: Full wafer, unsawn, 100% tested with reject die inked.
- CP396V-2N2369A-WR: Full wafer, sawn and mounted on plastic ring, 100% tested with reject die inked.

R0 (6-March 2015)

CP396V-2N2369A

Typical Electrical Characteristics



OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

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- Consolidated shipping options
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- Custom product packing

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- Environmental regulation compliance
- Customer specific screening
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- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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