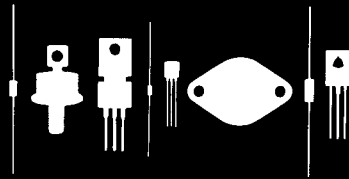


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145 Adams Avenue
Hauppauge, New York 11788



GES6014
GES6016

NPN SILICON TRANSISTOR

JEDEC TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR GES6014, GES6016 types are Silicon NPN Transistors manufactured by the epitaxial planar process designed for general purpose medium power amplifier and switching applications. The PNP complementary types are GES6015, GES6017 respectively.

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	GES6014	GES6016	UNIT
Collector-Base Voltage	V _{CB0}	70	70	V
Collector-Emitter Voltage	V _{CES}	70	70	V
Collector-Emitter Voltage	V _{CEO}	60	60	V
Emitter-Base Voltage	V _{EB0}	5.0	5.0	V
Collector Current	I _C	800	800	mA
Collector Current (PEAK)	I _{CM}	1500	1500	mA
Power Dissipation	P _D	625	625	mW
Power Dissipation ($T_C=25^\circ\text{C}$)	P _D	1.0	1.0	W
Operating and Storage Junction Temp.	T _J , T _{stg}	-65 TO +150		°C

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

SYMBOL	TEST CONDITIONS	GES6014		GES6016		UNIT
		MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =25V		10		10	nA
I _{EB0}	V _{EB} =3.0V		20		20	nA
BV _{CB0}	I _C =100μA	70		70		V
BV _{CES}	I _C =100μA	70		70		V
BV _{CEO}	I _C =10mA	60		60		V
BV _{EB0}	I _E =100μA	5.0		5.0		V
V _{CE(SAT)}	I _C =100mA, I _B =10mA		0.150		0.150	V
V _{CE(SAT)}	I _C =500mA, I _B =50mA		0.500		0.500	V
V _{BE(SAT)}	I _C =100mA, I _B =10mA	0.70	0.88	0.70	0.88	V
V _{BE(SAT)}	I _C =500mA, I _B =50mA	0.80	1.0	0.80	1.0	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =10mA	0.55	0.75	0.55	0.75	V
h _{FE}	V _{CE} =1.0V, I _C =100μA	45		70		
h _{FE}	V _{CE} =1.0V, I _C =10mA	100	300	200	500	
h _{FE}	V _{CE} =1.0V, I _C =100mA	85		170		
h _{FE}	V _{CE} =2.0V, I _C =500mA	20		20		
h _{fe}	V _{CE} =10V, I _E =1.0mA, f=1.0kHz	65	450	130	750	
h _{ie}	V _{CE} =10V, I _E =1.0mA, f=1.0kHz	1.5	12	2.5	20	kΩ
h _{oe}	V _{CE} =10V, I _E =1.0mA, f=1.0kHz		45		170	μmos
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		10		10	pF
C _{ib}	V _{EB} =0.5V, I _C =0, f=1.0MHz		50		45	pF
f _T	V _{CE} =10V, I _E =10mA, f=30MHz	105	335	135	425	MHz
NF	V _{CE} =5.0V, I _E =100μA, BW=15.7kHz, R _s =5.0KΩ f=10Hz, to 10kHz		5.0		3.0	dB
t _{on}	V _{CC} =30V, I _{C(ON)} =150mA, I _{B1} =15mA, V _{BE(OFF)} =0		37TYP		37TYP	ns
t _{off}	V _{CC} =30V, I _{C(ON)} =150mA, I _{B1} =I _{B2} =15mA		400TYP		400TYP	ns

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.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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