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Revision of datasheet for value typo comparison report

Prepared by Riona
Approved by Celia
Issue date at 2016.2.10
Reversion for B

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Comparison report

Subject: 2CZ4004 series & 2CZ4006

old datasheet version

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)				
PARAMETER	**SYMBOL**	**PART NUMBER**		**UNIT**
Marking code on the device		2CZ4004	2CZ4005	

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**PART NUMBER**	**UNIT**
Marking code on the device		2CZ4006	

new datasheet version

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)				
PARAMETER	**SYMBOL**	2CZ4004	2CZ4005	**UNIT**
Marking code on the device		Z44	Z45	

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted			
PARAMETER	**SYMBOL**	2CZ4006	**UNIT**
Marking code on the device		Z46	

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Comparison report

Subject: 1N4148/1N4448/1N914B

old datasheet version

FEATURES

- Fast switching device (trr<4.0ns)
- Through-hole device type mounting
- Moisture sensitivity level 1
- Solder hot dip Tin(Sn) lead finish
- Pb free version and RoHS compliant
- All external surfaces are corrosion resistant and leads are readily solderable
- Packing code with suffix "G" means Halogen-free

new datasheet version

FEATURES

- Fast switching device (trr<4.0ns)
- Through-hole device type mounting
- ~~Moisture sensitivity level 1~~
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Comparison report

Subject: BAS40 / -04 / -05 / -06

old datasheet version

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	I_R=10μA	$V_{(BR)}$	40	-	V
Forward Voltage	I_F=1mA	V_F	-	0.38	V
	I_F=10mA		-	0.50	
	I_F=40mA		-	1.00	
Reverse Leakage Current	V_R=30V	I_R	-	0.2	μA
Junction Capacitance	V_R=1V, f=1.0MHz	C_J	-	5.0	pF
Reverse Recovery Time	I_F=I_R=10mA, R_L=100Ω, I_{RR}=1mA	t_{rr}	-	5.0	ns

Notes : 1. Test Condition : 8.3ms single half sine-wave superimposed on rated load

Notes : 2. Valid provided that electrodes are kept at ambient temperature

new datasheet version

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	I_R=10μA	$V_{(BR)}$	40	-	V
Forward Voltage	I_F=1mA	V_F	-	0.38	V
	~~I_F=10mA~~		~~-~~	~~0.50~~	
	I_F=40mA		-	1.00	
Reverse Leakage Current	V_R=30V	I_R	-	0.2	μA
Junction Capacitance	V_R=1V, f=1.0MHz	C_J	-	5.0	pF
Reverse Recovery Time	I_F=I_R=10mA, R_L=100Ω, I_{RR}=1mA	t_{rr}	-	5.0	ns

Notes : 1. Test Condition : 8.3ms single half sine-wave superimposed on rated load

Notes : 2. Valid provided that electrodes are kept at ambient temperature

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Comparison report

Compared:

		conment
Revise Datasheet	BC807-16 -25 -40	Revise Datasheet, product no change .

old datasheet version

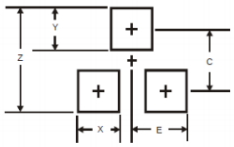
1. Remove ELECTRICAL CHARACTERISTICS :VCBO /VCEO / VEBO
2. Ft max:**80MHz**
3. Pad layout dimension

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	0.3	W
Collector Current - Continuous	I_C	-0.5	A
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

PARAMETER		SYMBOL	MIN	MAX	UNIT
Collector-Base Breakdown Voltage	I_C = -10 μA I_E = 0	V_{CBO}		-50	V
Collector-Emitter Breakdown Voltage	I_C = -10 mA I_B = 0	V_{CEO}		-45	V
Emitter-Base Breakdown Voltage	I_E = -1 μA I_C = 0	V_{EBO}		-5	V
Collector Cut-off Current	V_{CB} = -45 V I_E = 0	I_{CBO}		-0.1	μA
	V_{CB} = -40 V I_B = 0			-0.2	μA
Emitter Cut-off Current	V_{EB} = -4 V I_C = 0	I_{EBO}		-0.1	μA
Collector-Emitter Saturation Voltage	at I_C = -500mA I_B = -50 mA	$V_{CE(sat)}$		-0.7	V
Base-Emitter Saturation Voltage	at I_C = -500 mA I_B = -50 mA	$V_{BE(sat)}$		-1.2	V
Transition Frequency	V_{CE} = -5 V I_C = -10 mA f = 50MHz	f_T		80	MHz

SUGGEST PAD LAYOUT



DIM.	Unit (mm) Typ.	Unit (inch) Typ.
A	0.95	0.037
B	2.0	0.079
C	0.9	0.035
D	0.8	0.031

New datasheet version

1. Add MAXIMUM RATINGS : VCBO /VCEO / VEBO value
2. Ft Min :100MHz
3. Revise Pad layout dimension

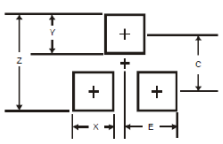
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	0.3	W
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-0.5	A
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	MAX	UNIT
~~Collector-Base Breakdown Voltage~~	~~V_{CBO}~~		~~-50~~	~~V~~
~~Collector-Emitter Breakdown Voltage~~	~~V_{CEO}~~		~~-45~~	~~V~~
~~Emitter-Base Breakdown Voltage~~	~~V_{EBO}~~		~~-5~~	~~V~~
Collector Cut-off Current	I_{CBO}		-0.1	μA
			-0.2	μA
Emitter Cut-off Current	I_{EBO}		-0.1	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.2	V
Transition Frequency	f_T	100		MHz

SUGGEST PAD LAYOUT



DIM	Unit (mm) TYP	Unit (inch) TYP
Z	2.8	0.11
X	0.7	0.03
Y	0.9	0.04
C	1.9	0.07
E	1.0	0.04

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Comparison report

Compared:

		conment
Revise Datasheet	BC817-16 -25 -40	Revise Datasheet , product no change

old datasheet version

1、ELECTRICAL CHARACTERISTICS :VCBO /VCEO / VEBO
2、Ft max:100**MHz**

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	P_D	300	mW
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	417	°C
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Notes: 1. Valid provided that electrodes are kept at ambient temperature

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

PARAMETER			SYMBOL	MIN	MAX	UNIT
Collector-Base Breakdown Voltage	I_C= 10μA	I_E= 0	$V_{(BR)CBO}$		50	V
Collector-Emitter Breakdown Voltage	I_C= 10mA	I_B= 0	$V_{(BR)CEO}$		45	V
Emitter-Base Breakdown Voltage	I_E= 1μA	I_C= 0	$V_{(BR)EBO}$		5	V
Collector Cut-off Current	V_{CB}= 45V	I_E= 0	I_{CBO}		0.1	μA
Emitter Cut-off Current	V_{EB}= 4V	I_C= 0	I_{EBO}		0.1	μA
Collector-Emitter Saturation Voltage	I_C= 500mA	I_B= 50 mA	$V_{CE(sat)}$		0.7	V
Base-Emitter Saturation Voltage	I_C= 500mA	I_B= 50 mA	$V_{BE(sat)}$		1.2	V
Transition Frequency V_{CE}= 5V	I_C= 10mA	f= 100MHz	f_T		100	MHz

New datasheet version

1、Remove ELECTRICAL CHARACTERISTICS :VCBO /VCEO / VEBO
2、Ft Min:100MHz

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	P_D	300	mW
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	417	°C
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Notes: 1. Valid provided that electrodes are kept at ambient temperature

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

PARAMETER			SYMBOL	MIN	MAX	UNIT
~~Collector-Base Breakdown Voltage~~	~~I_C= 10μA~~	~~I_E= 0~~	~~$V_{(BR)CBO}$~~		~~50~~	~~V~~
~~Collector-Emitter Breakdown Voltage~~	~~I_C= 10mA~~	~~I_B= 0~~	~~$V_{(BR)CEO}$~~		~~45~~	~~V~~
~~Emitter-Base Breakdown Voltage~~	~~I_E= 1μA~~	~~I_C= 0~~	~~$V_{(BR)EBO}$~~		~~5~~	~~V~~
Collector Cut-off Current	V_{CB}= 45V	I_E= 0	I_{CBO}		0.1	μA
Emitter Cut-off Current	V_{EB}= 4V	I_C= 0	I_{EBO}		0.1	μA
Collector-Emitter Saturation Voltage	I_C= 500mA	I_B= 50 mA	$V_{CE(sat)}$		0.7	V
Base-Emitter Saturation Voltage	I_C= 500mA	I_B= 50 mA	$V_{BE(sat)}$		1.2	V
Transition Frequency V_{CE}= 5V	I_C= 10mA	f= 100MHz	f_T	100		MHz