



IMZ2A

COMPLEMENTARY DUAL GENERAL PURPOSE AMPLIFIER TRANSIS

VOLTAGE 50 Volts **POWER** 300mW

SOT23-6L Unit: inch (mm)

FEATURES

- PNP/NPN epitaxial silicon, planar design
- Collector-emitter voltage $V_{CE}=50V$
- Collector current $I_C=150mA$
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case : SOT23-6L plastic
 Terminals : Solderable per MIL-STD-750,Method 2026
 Approx. Weight: 0.013gram
 Marking : Z2A

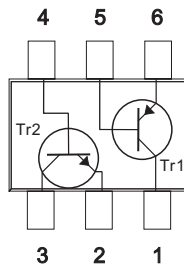
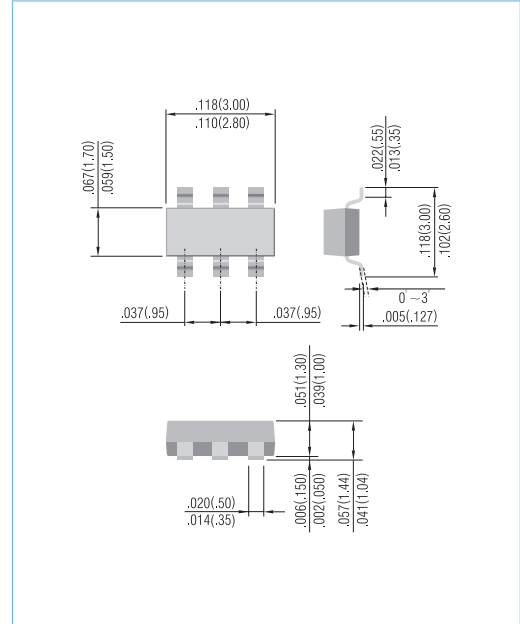


Fig.137



ABSOLUTE RATINGS (TA=25°C)

PARAMETER	SYMBOL	Tr1	Tr2	UNITS
Collector-Emitter Voltage	V_{CEO}	-50	50	V
Collector-Base Voltage	V_{CBO}	-60	60	V
Emitter-Base Voltage	V_{EBO}	-6	7	V
Collector Current Continuous	I_C	-150	150	mA

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNITS
Max. Power Dissipation (Note1)	P_{TOT}	300	mW
Thermal Resistance, Junction to Ambient (Note1)	$R_{\theta JA}$	106	°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

NOTE:

1. Transistor mounted on FR-4 board 70 x 60 x 1 mm.



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ELECTRICAL CHARACTERISTICS (T_A=25°C)

Tr1 (PNP)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =-1mA	-50	-	-	V
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =-50μA	-60	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =-50μA	-6	-	-	V
Collector-Base Cutoff Current	I _{CBO}	V _{CB} =-60V	-	-	-0.1	μA
Collector-Emitter Cutoff Current	I _{EBO}	V _{EB} =-6V	-	-	-0.1	μA
DC Current Gain (Note1)	h _{FE}	V _{CE} =-6V, I _C =-1mA	120	-	560	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C /I _B =-50mA/-5mA	-	-	-0.5	V
Cutoff Frequency	f _r	I _E =2mA, V _{CE} =-12V, f=100MHz	-	140	-	MHz
Output Capacitance	C _{ob}	I _E =0mA, V _{CE} =-12V, f=100MHz	-	4	5	pF

Tr2 (NPN)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =1mA	50	-	-	V
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =50μA	60	-	-	V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =50μA	7	-	-	V
Collector-Base Cutoff Current	I _{CBO}	V _{CB} =60V	-	-	0.1	μA
Collector-Emitter Cutoff Current	I _{EBO}	V _{EB} =7V	-	-	0.1	μA
DC Current Gain (Note1)	h _{FE}	V _{CE} =6V, I _C =1mA	120	-	560	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C /I _B =50mA/5mA	-	-	0.4	V
Cutoff Frequency	f _r	I _E =2mA, V _{CE} =12V, f=100MHz	-	180	-	MHz
Output Capacitance	C _{ob}	I _E =0mA, V _{CE} =12V, f=100MHz	-	2	3.5	pF



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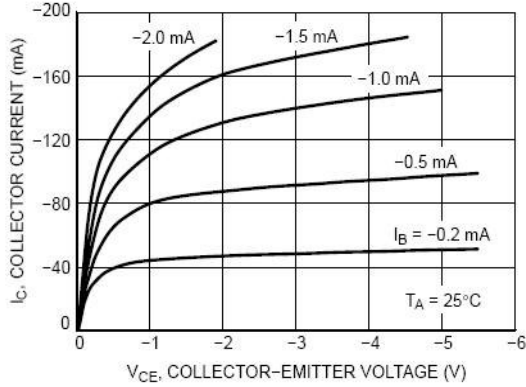


Fig. 1. Collector Saturation Region

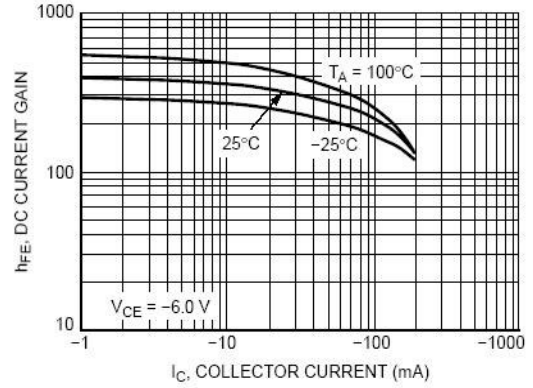


Fig. 2. DC Current Gain

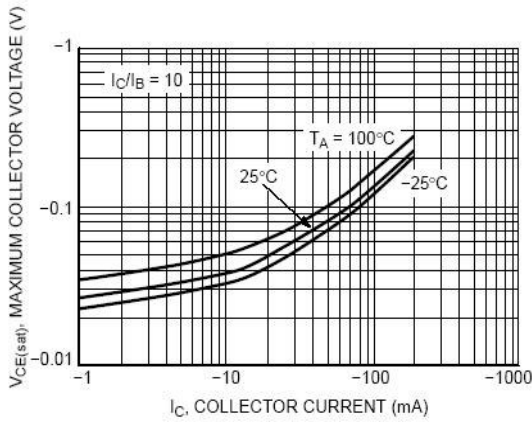


Fig. 3. $V_{CE(sat)}$ versus I_C

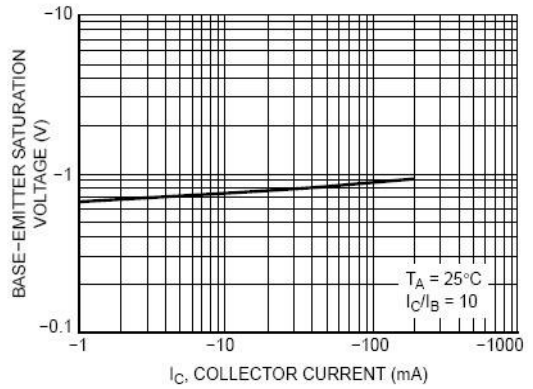


Fig. 4. $V_{BE(sat)}$ versus I_C

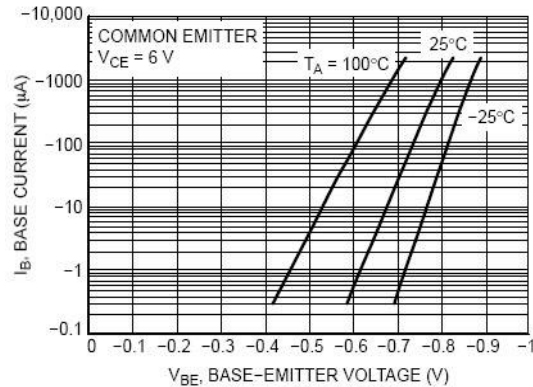


Fig. 5. Base-Emitter Voltage



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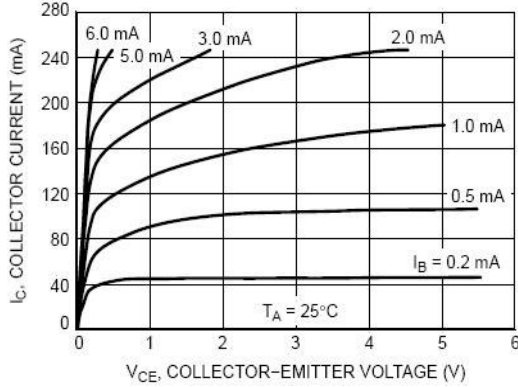


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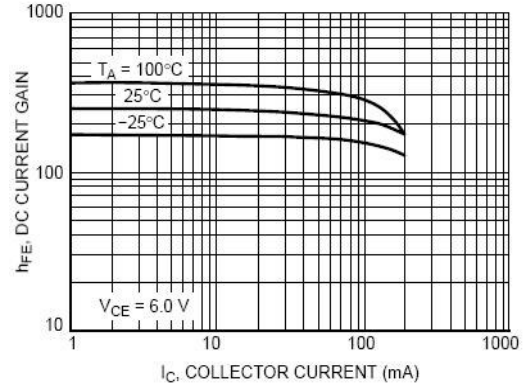


Fig. 2. DC Current Gain

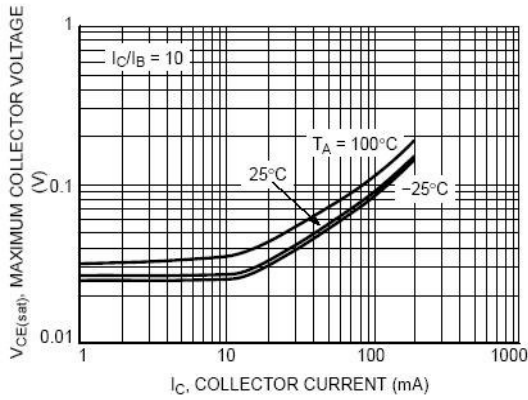


Fig. 3. $V_{CE(sat)}$ versus I_C

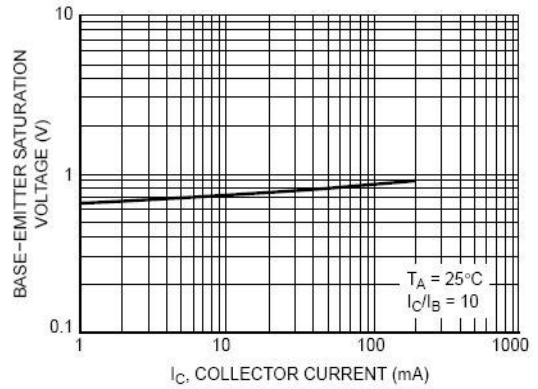


Fig. 4. $V_{BE(sat)}$ versus I_C

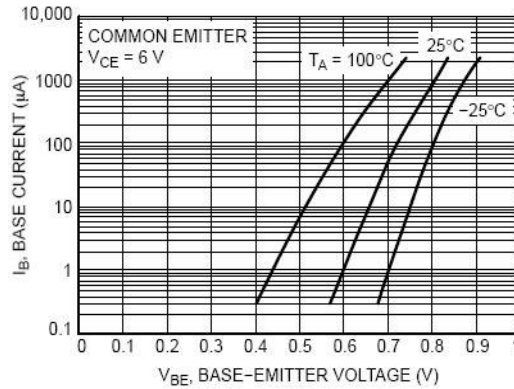
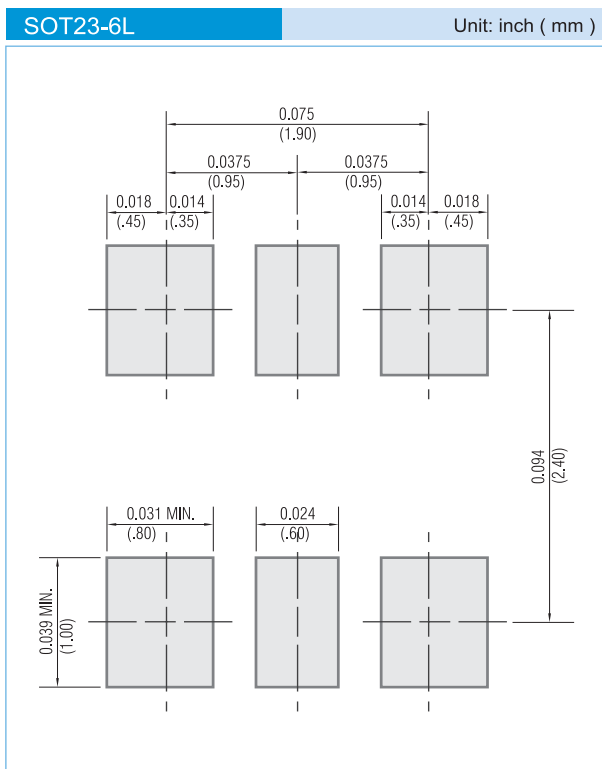


Fig. 5. Base-Emmitter Voltage



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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