

UTC IMZ88

DUAL TRANSISTOR

GENERAL PURPOSE DUAL TRANSISTOR

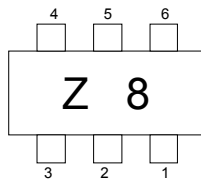
FEATURES

*Both a 8550S chip and 8050S chip in a SMT package

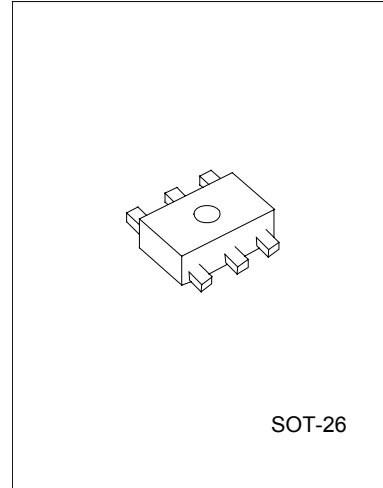
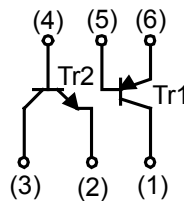
APPLICATIONS

*Class B push-pull audio amplifier
*General purpose applications

MARKING



EQUIVALENT CIRCUITS



PIN 1 : Collector (1) PIN 4: Base (2)
PIN 2: Emitter (2) PIN 5: Base (1)
PIN 3: Collector (2) PIN 6: Emitter (1)

ABSOLUTE MAXIMUM RATINGS (Ta=25°C ,unless otherwise specified)

PARAMETER	SYMBOL	RATING		UNIT
		Tr1	Tr2	
Collector-Base Voltage	V _{CB0}	-30	30	V
Collector-Emitter Voltage	V _{CEO}	-20	20	V
Emitter-Base Voltage	V _{EB0}	-5	5	V
Collector Current	I _c	-700	700	mA
Collector Dissipation	P _c	300		mW
Junction Temperature	T _j	150		°C
Storage Temperature	T _{STG}	-65 ~ +150		°C

ELECTRICAL CHARACTERISTICS (Ta=25°C,unless otherwise specified)

Tr1

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV _{CB0}	I _c =-100μA, I _E =0	-30			V
Collector-emitter breakdown voltage	BV _{CEO}	I _c =-1mA, I _B =0	-20			V
Emitter-base breakdown voltage	BV _{EB0}	I _E =-100μA, I _c =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-30V, I _E =0			-1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _c =0			-100	nA
DC current gain	hFE1	V _{CE} =-1V, I _c =-1mA	100			
	hFE2	V _{CE} =-1V, I _c =-150mA	120	110	400	

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PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
	hFE3	VCE=-1V, Ic=-500mA	40			
Collector-emitter saturation voltage	VCE(sat)	Ic=-500mA, IB=-50mA			-0.5	V
Base-emitter saturation voltage	VBE(sat)	Ic=500mA, IB=-50mA			-1.2	V
Base-emitter saturation voltage	VBE	VCE=-1V, Ic=-10mA			-1.0	V
Current gain bandwidth product	ft	VCE=-10V, Ic=-50mA	100			MHz
Output capacitance	Cob	VCB=10V, IE=0, f=1MHz		9.0		pF

Tr2

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BVCBO	Ic=100μA, IE=0	30			V
Collector-Emitter Breakdown Voltage	BVCEO	Ic=1mA, IB=0	20			V
Emitter-Base Breakdown Voltage	BVEBO	IE=100μA, Ic=0	5			V
Collector Cut-Off Current	ICBO	VCB=30V, IE=0			1	μA
Emitter Cut-Off Current	IEBO	VEB=5V, Ic=0			100	nA
DC Current Gain	hFE1	VCE=1V, Ic=1mA	100			
	hFE2	VCE=1V, Ic=150mA	120	110	400	
	hFE3	VCE=1V, Ic=500mA	40			
Collector-Emitter Saturation Voltage	VCE(sat)	Ic=500mA, IB=50mA			0.5	V
Base-Emitter Saturation Voltage	VBE(sat)	Ic=500mA, IB=50mA			1.2	V
Base-Emitter Saturation Voltage	VBE	VCE=1V, Ic=10mA			1.0	V
Current Gain Bandwidth Product	ft	VCE=10V, Ic=50mA	100			MHz
Output Capacitance	Cob	VCB=10V, IE=0, f=1MHz		9.0		pF

CLASSIFICATION OF hFE2

RANK	C	D	E
RANGE	120-200	160-300	280-400

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