

ZXTD**M832EV

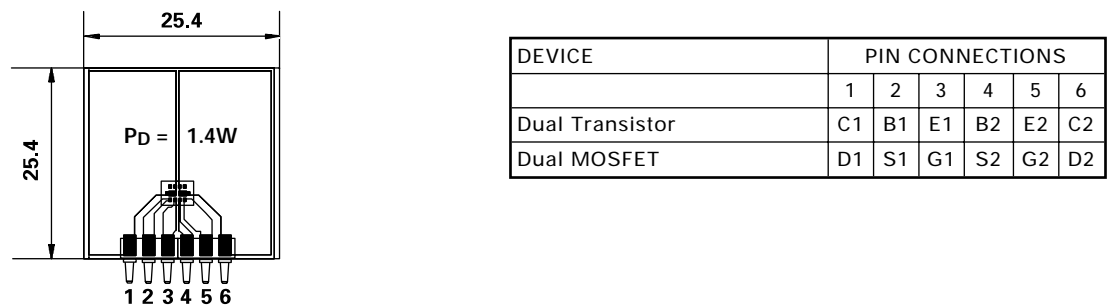
ZXM***M832EV

MPPS™ Miniature Package Power Solutions

COMBINATION DUAL DIE MLP EVALUATION BOARD THERMAL

SPECIFICATION SHEET

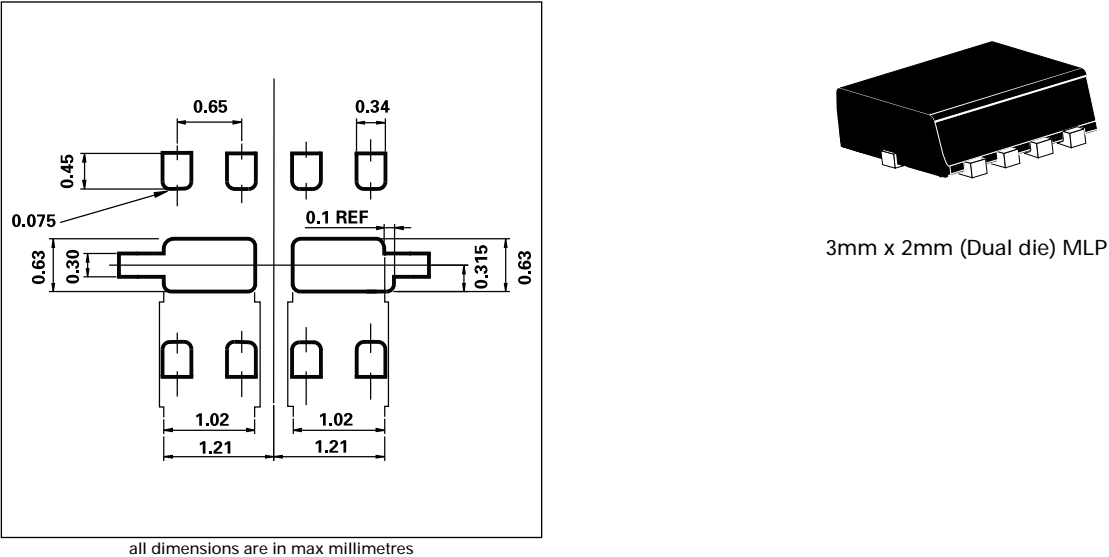
EVALUATION BOARD DIAGRAM



Note:
 Designers needing to evaluate electrical performance using the thermal evaluation boards must be aware that the device(s) pass the the datasheet limits but the resistance paths of the PCB contribute significant series resistance.
 This should be taken into account when measuring higher current VCE(sat) , VBE(sat) and VBE(on) parameters.

RECOMMENDED FOOTPRINT 3mm x 2mm MLP

(underside view)



SHORTFORM TABLES (see page 3)

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P_D & THERMAL DATA

PARAMETER	SYMBOL	LIMIT	UNIT
Power Dissipation at TA=25°C			
Power Dissipation at TA=25°C (a)(f) Linear Derating Factor	P _D	1.5 12	W mW/°C
Power Dissipation at TA=25°C (b)(f) Linear Derating Factor	P _D	2.45 19.6	W mW/°C
Power Dissipation at TA=25°C (c)(f) Linear Derating Factor	P _D	1 8	W mW/°C
Power Dissipation at TA=25°C (d)(f) Linear Derating Factor	P _D	1.13 9	W mW/°C
Power Dissipation at TA=25°C (d)(g) Linear Derating Factor	P _D	1.7 13.6	W mW/°C
Power Dissipation at TA=25°C (e)(g) Linear Derating Factor	P _D	3 24	W mW/°C
Operating and Storage Temperature Range	T _J :T _{stg}	-55 to +150	°C
THERMAL RESISTANCE			
Junction to Ambient (a)(f)	R _{θJA}	83.3	°C/W
Junction to Ambient (b)(f)	R _{θJA}	51	°C/W
Junction to Ambient (c)(f)	R _{θJA}	125	°C/W
Junction to Ambient (d)(f)	R _{θJA}	111	°C/W
Junction to Ambient (d)(g)	R _{θJA}	73.5	°C/W
Junction to Ambient (e)(g)	R _{θJA}	41.7	°C/W

Notes

(a) For a dual device surface mounted on 8 sq cm single sided 2oz copper on FR4 PCB, in still air conditions **with all exposed pads attached**. The copper area is split down the centre line into two separate areas with one half connected to each half of the dual device.

(b) Measured at t<5 secs for a dual device surface mounted on 8 sq cm single sided 2oz copper on FR4 PCB, in still air conditions **with all exposed pads attached**. The copper area is split down the centre line into two separate areas with one half connected to each half of the dual device.

(c) For a dual device surface mounted on 8 sq cm single sided 2oz copper on FR4 PCB, in still air conditions **with minimal lead connections only**.

(d) For a dual device surface mounted on 10 sq cm single sided 1oz copper on FR4 PCB, in still air conditions **with all exposed pads attached attached**. The copper area is split down the centre line into two separate areas with one half connected to each half of the dual device.

(e) For a dual device surface mounted on 85 sq cm single sided 2oz copper on FR4 PCB, in still air conditions **with all exposed pads attached**. The copper area is split down the centre line into two separate areas with one half connected to each half of the dual device.

(f) For a dual device with one active die.

(g) For dual device with 2 active die running at equal power.

(i) The minimum copper dimensions required for mounting are no smaller than the exposed metal pads on the base of the device as shown in the package dimensions data. The thermal resistance for a dual device mounted on 1.5mm thick FR4 board using minimum copper 1 oz weight, 1mm wide tracks and one half of the device active is R_{th} = 250°C/W giving a power rating of P_{tot} = 500mW.



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Notes

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SHORTFORM TABLE (Transistor)

Dual Transistor Device Type	Part Code	Polarity	V _{CEO} V	I _C A	Combination Dual Device Type	Part Code	Polarity	V _{CEO} V	I _C A
#ZXTDAM832EV #ZXTDBM832EV #ZXTDCM832EV	DAA	NPN & NPN	15	4.5	#ZXTDA1M832EV	DA1	NPN	15	4.5
	DBB		20	4.5	#ZXTDB2M832EV	DB2	PNP	-12	-4
	DCC		50	4			NPN	20	4.5
							PNP	-20	-3.5
#ZXTD1M832EV #ZXTD2M832EV #ZXTD3M832EV	D11	PNP & PNP	-12	-4	#ZXTDC3M832EV	DC3	NPN	50	4
	D22		-20	-3.5	#ZXTDE4M832EV	DE4	PNP	-40	-3
	D33		-40	-3			NPN	80	3.5
							PNP	-70	-2.5

SHORTFORM TABLE (MOSFET)

Dual Transistor Device Type	Part Code	Polarity	BV _{DSS} V	I _D A	Combination Dual Device Type	Part Code	Polarity	BV _{DSS} V	I _D A
#ZXMN2AM832EV	DNA	N-Channel	20	2.9	#ZXMC3AM832EV	C01	N-Channel	30	2.9
#ZXMN3AM832EV	DNB	N-Channel	30	2.9			P-Channel	-30	-2.1
#ZXMP62M832EV	DPA	P-Channel	-20	-1.3					

Prefix is an internal ordering requirement only.

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