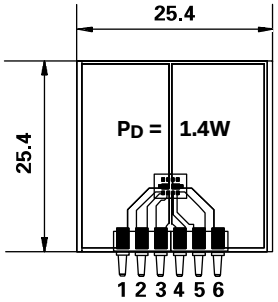
ZXTD**M832EV
ZXM***M832EV

MPPS™ Miniature Package Power Solutions
COMBINATION DUAL DIE MLP EVALUATION BOARD THERMAL SPECIFICATION SHEET

EVALUATION BOARD DIAGRAM

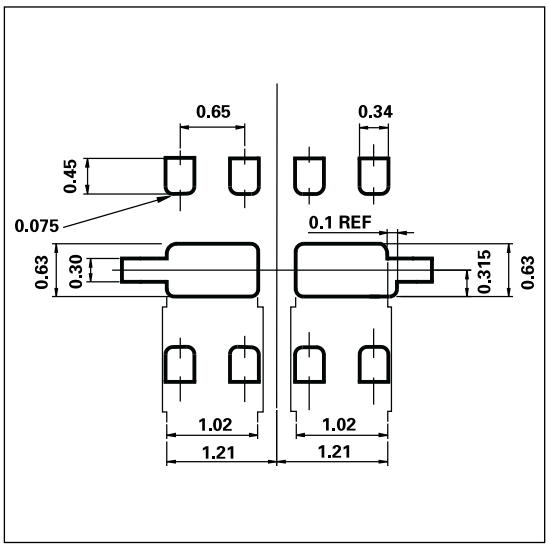


DEVICE	PIN CONNECTIONS					
	1	2	3	4	5	6
Dual Transistor	C1	B1	E1	B2	E2	C2
Dual MOSFET	D1	S1	G1	S2	G2	D2

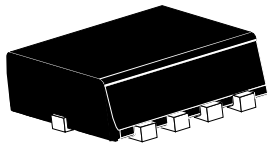
Note:
Designers needing to evaluate electrical performance using the thermal evaluation boards must be aware that the device(s) pass the the datasheet limits but the resistance paths of the PCB contribute significant series resistance.

This should be taken into account when measuring higher current $V_{CE(sat)}$, $V_{BE(sat)}$ and $V_{BE(on)}$ parameters.

RECOMMENDED FOOTPRINT 3mm x 2mm MLP
(underside view)



all dimensions are in max millimetres



3mm x 2mm (Dual die) MLP

SHORTFORM TABLES (see page 3)

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)	$R_{\theta JA}$	83.3	°C/W
Junction to Ambient (b)(f)	$R_{\theta JA}$	51	°C/W
Junction to Ambient (c)(f)	$R_{\theta JA}$	125	°C/W
Junction to Ambient (d)(f)	$R_{\theta JA}$	111	°C/W
Junction to Ambient (d)(g)	$R_{\theta JA}$	73.5	°C/W
Junction to Ambient (e)(g)	$R_{\theta JA}$	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 Rth = 250°C/W giving a power rating of Ptot = 500mW.

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	DAA	NPN & NPN	15	4.5	#ZXTDA1M832EV	DA1	NPN	15	4.5
							PNP	-12	-4
#ZXTDBM832EV	DBB		20	4.5	#ZXTDB2M832EV	DB2	NPN	20	4.5
#ZXTDCM832EV	DCC		50	4			PNP	-20	-3.5
#ZXTD1M832EV	D11	PNP & PNP	-12	-4	#ZXTDC3M832EV	DC3	NPN	50	4
							PNP	-40	-3
#ZXTD2M832EV	D22		-20	-3.5	#ZXTDE4M832EV	DE4	NPN	80	3.5
#ZXTD3M832EV	D33		-40	-3			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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