

LOW VOLTAGE DISCRETE SOLUTIONS



FDME3N311ZT AND FDMA6023PZT IN MICROFET™ 2x2 & 1.6x1.6

Fairchild's Offering

Designed with its proprietary PowerTrench® process technology, Fairchild Semiconductor offers low voltage discrete solutions for portable applications with excellent thermal performance and high efficiency in ultra-compact form factors. Even under limited PCB space, Fairchild's discrete solutions can offer exceptional power dissipation to reduce heat generation and power consumption.

Features & Benefits

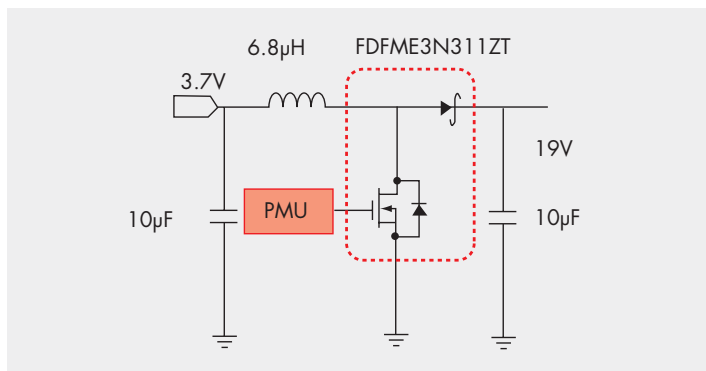
- Small footprint saves PCB space
- Exposed leadframe enables great thermal performance
- Low $R_{DS(ON)}$ provides excellent efficiency

		Specifications	
Part Number		FDME3N311ZT	FDMA6023PZT
Configuration		N-Channel + Schottky	Dual P-Channel
Package (mm)		 MicroFET Thin 1.6 x 1.6 x 0.55	 MicroFET Thin 2 x 2 x 0.55
BV_{DSS} Min. (V)		30	-20
V_{GS} (V)		± 12	± 8
$V_{GS(th)}$ Max. (V)		1.5	-1.5
$R_{DS(ON)}$ Max. (mΩ)	4.5V	299	60
	2.5V	410	80
	1.5V	N/A	170
Q_g Typ. @ $V_{GS} = 4.5V$ (nC)		1	12
I_D (A)		1.6	-3.6
P_D (W)		1.1	1.4
Schottky Diode			
Reverse Leakage (μA) ($V_R = 28V$)		100	N/A
Forward Voltage (V) ($I_F = 0.5A$)		0.48	N/A

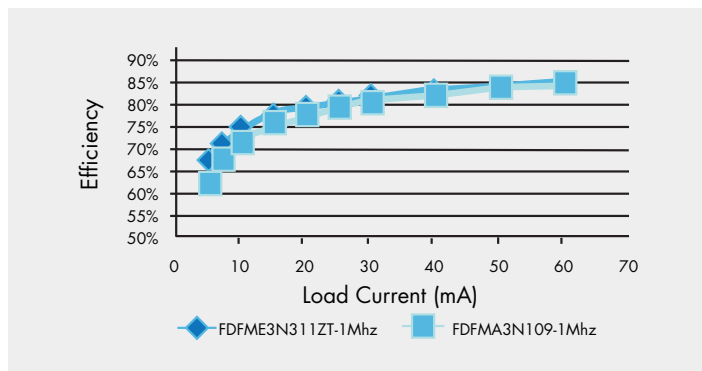


For data sheets, application notes, samples and more, please visit: www.fairchildsemi.com

Applications and Simulation Results



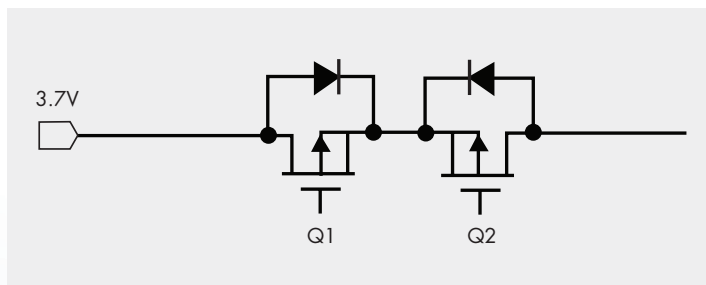
FDFME3N311ZT



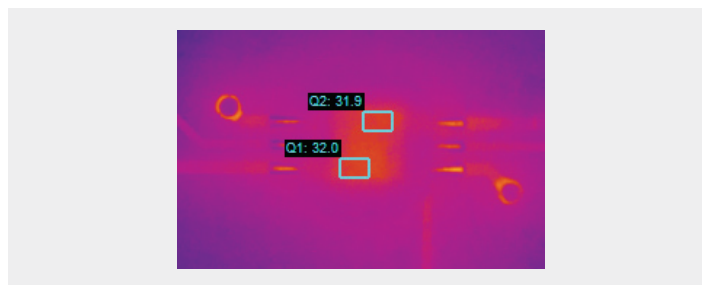
Load Current vs. Efficiency

FDMA6023PZT Simulation Results

V _{IN} (V)	Surface Temperature (°C)		Voltage Drop V _D (mV)		Calculated R _{DS(ON)} = V _D / 0.5A (mΩ)	
	Q1	Q2	Q1	Q2	Q1	Q2
3.7	32.0	31.9	32	28	64	56



FDMA6023PZT



Surface Temperature

MicroFET 1.6 x 1.6

Part Number	Description	Rating	Application	Package (mm)
FDME1023PZT*	Dual P-Channel	20/8	Charge FET	MicroFET 1.6x1.6 Thin
FDFME2P823ZT*	Single P-Channel + Schottky	20/8	Charge FET	MicroFET 1.6x1.6 Thin
FDME510PZT*	Single P-Channel	20/8	Load Switch	MicroFET 1.6x1.6 Thin
FDME410NZT*	Single N-Channel	20/8	Load Switch	MicroFET 1.6x1.6 Thin
FDME1024NZT*	Dual N-Channel	20/8	Power Switch	MicroFET 1.6x1.6 Thin
FDME1034CZT*	Comp Pair	20/8	DC-DC Switcher	MicroFET 1.6x1.6 Thin

* In development

For additional information, please visit:
www.fairchildsemi.com/pf/FD/FDFME3N311ZT
www.fairchildsemi.com/pf/FD/FDMA6023PZT