



MID-VOLTAGE MOSFET TECHNOLOGY

If you need increased output power in space-constrained systems, look to Fairchild Semiconductor for its mid-voltage MOSFET technology that enables higher power density and high efficiency solutions. Advanced silicon and packaging technology are combined to provide the lowest $R_{DS(ON)}$ available, improved Figure of Merit (FOM), and lower power dissipation to meet challenging efficiency standards. Fairchild's PowerTrench® MOSFETs with shielded-gate technology results in very low switching losses without requiring external snubbers in most applications.

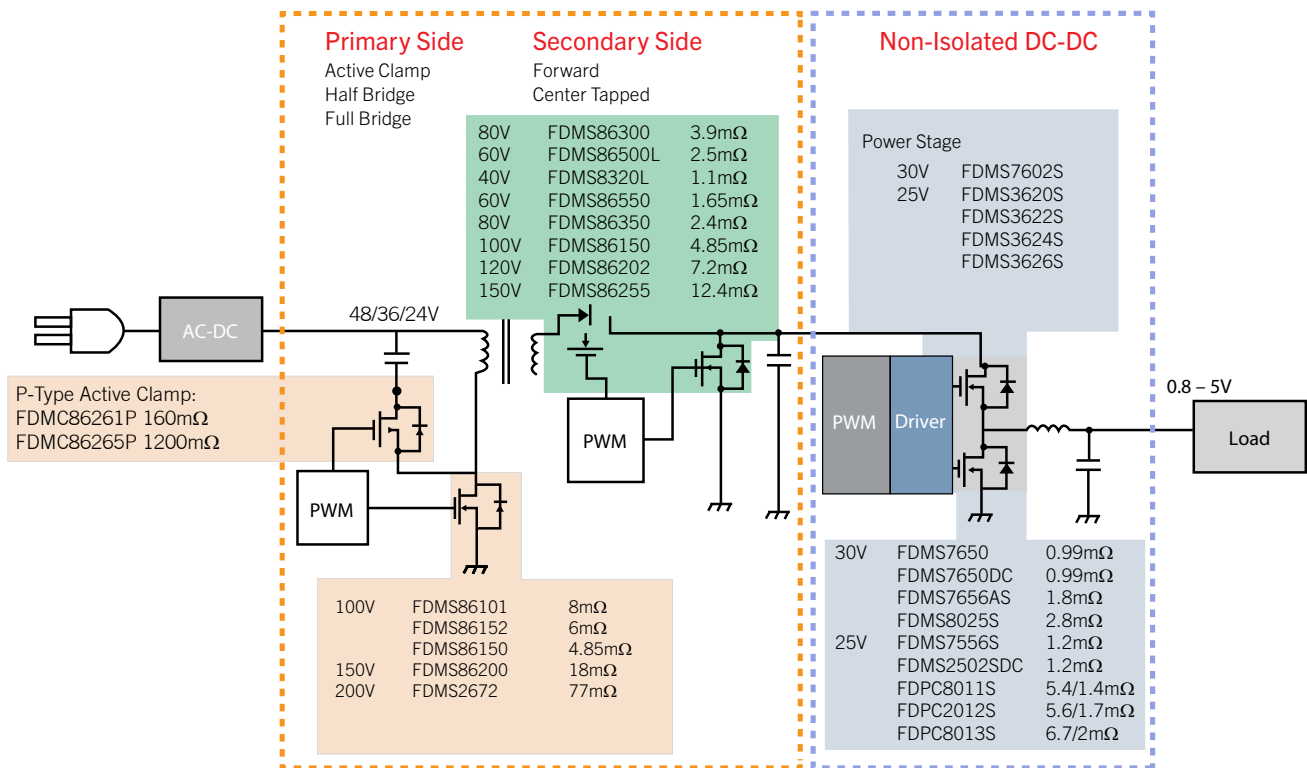
Features

- Lowest $R_{DS(ON)}$ 2.5mΩ max. (60V BV_{DSS})
- Reduced Q_{GD} : low switching loss using Fairchild's proprietary shielded-gate technology

- Superior switching performance
- Low switching noise
- Low ringing: no external snubber required in most applications
- Power56 (5mm x 6mm) thermally-enhanced, industry standard package

Applications

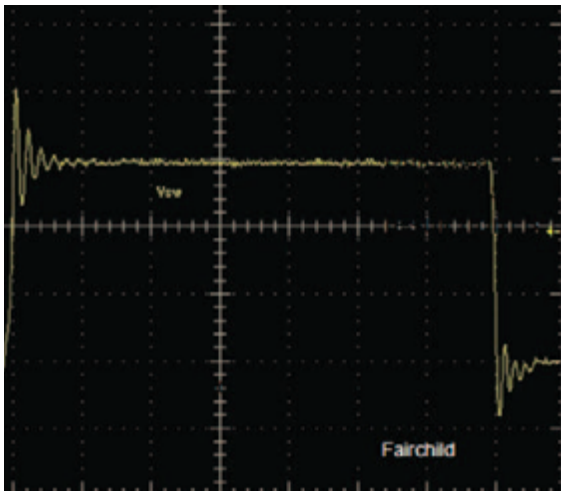
- DC-DC power supplies (primary and secondary sides)
- Synchronous rectifiers
- Motor control switches
- Load switches
- Solar inverter switches



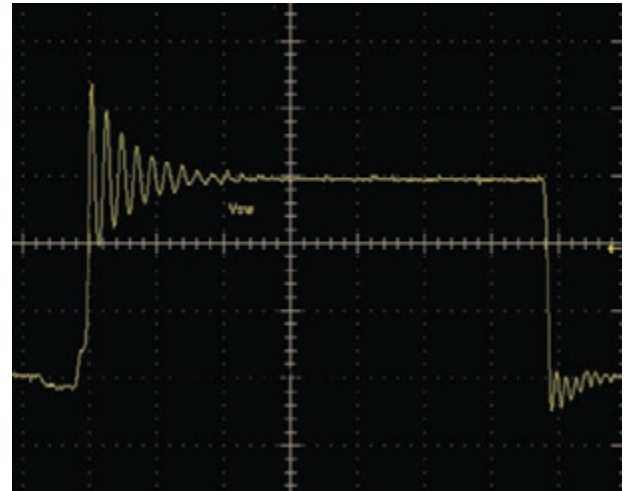
Fairchild's complete portfolio for primary side, secondary side and non-isolated DC-DC

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Part Number	BV _{DSS}	I _D (A)	R _{DS(ON)} Max (mΩ)				(nC) TTLQg at 4.5V	(nC) Qgs	(nC) Qgd	(pF) C _{DSS}	Previous Generations	Package
			10V	8V	6V	4.5V						
FDMS8320L	40	32	1.1	-	-	1.5	58	19.2	16.5	2840	FDMS8460	Power 56
FDMC8321L	40	22	2.5	-	-	4.1	21	7.7	4.8	1000	FDMC8462	Power 33
FDMS8350L	40	47	0.85	-	-	1.2	80	30	18	3430	FDMS8320L	Power 56
FDMS86500L	60	25	2.5	-	-	3.7	54	26.6	11.5	1470	FDMS5352	Power 56
FDMS86540	60	20	3.4	4.1	-	-	53	23	12	1413	-	Power 56
FDMS86520L	60	13.5	8.2	-	-	11.7	21	9.5	4.7	625	FDMS5672	Power 56
FDMC86520L	60	13.5	7.9	-	-	11.7	21	9.6	4.9	638	-	Power 33
FDMS86300	80	19	3.9	5.5	-	-	59	28.2	14.9	957	FDMS86322	Power 56
FDMS86310	80	17	4.8	6.7	-	-	55	24	14	693	-	Power 56
FDMS86320	80	10.5	11.7	15	-	-	24	10	6.9	353	FDMS3572	Power 56
FDMC86320	80	10.7	11.7	16	-	-	24	10	6.9	353	-	Power 33
FDMS86150	100	16	4.85	-	7.8	-	44	12.9	9.2	696	-	Power 56
FDMS86101	100	13	8	-	13.5	-	39	9.5	10.8	460	FDMS3672	Power 56
FDMC86102	100	7	24	-	38	-	13	3.7	3.6	175	-	Power 33
FDMS86201	120	11.6	11.5	-	14.5	-	32	8.1	7.1	322	-	Power 56
FDMS86200	150	9.6	18	-	21	-	33	7.9	7.7	203	FDMS2572	Power 56
FDMC86240	150	4.6	51	-	70	-	11	2.8	2.3	79	-	Power 33
FDMS2672	200	3.7	77	-	88	-	-	30	8	95	-	Power 56
FDMC2610	200	22	200	-	215	-	-	12.3	3.6	41	-	Power 33
FDMS2734	250	2.8	122	-	130	-	-	30	9	80	-	Power 56



Devices with Fairchild's PowerTrench® MOSFET shielded-gate technology



Competitor's devices



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