



NXP power MOSFETs in SOT883

The World's smallest MOSFET

For portable applications, board real estate is a critical factor and drives the development of products with ever smaller footprints. However as packages get smaller, the proportion of footprint area occupied by leads becomes more significant. NXP's latest power MOSFETs in the SOT883 package help you reclaim more board space by eliminating leads altogether and at the same time enhancing thermal performance.

Key benefits

- ▶ Ultra small where space is a premium
- ▶ Better performance than existing small footprints
 - higher power dissipation and lower $R_{DS(on)}$ with higher current density
 - reduced heat dissipation can eliminate need for cooling fan or bulky heat sink
- ▶ Occupies only 1.17 mm^2 , only 30% of SC-75 or SC-89

Key features

- ▶ 2.5W power dissipation
- ▶ Highly efficient packing
- ▶ Environmentally friendly
- ▶ Compatible with JEITA standard, SC-101
- ▶ Size: $1.0 \times 0.6 \times 0.5 \text{ mm}$ (lwh)

Key applications

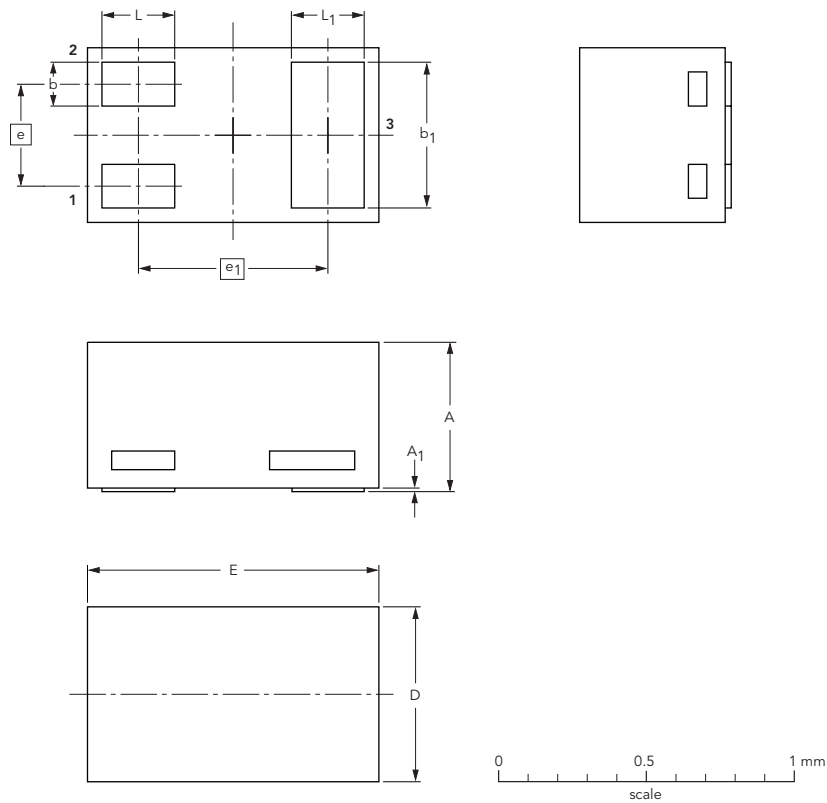
- ▶ Load switch
 - mobile phones
 - notebook PCs
 - PDAs
 - MP3 players
 - digital still cameras
- ▶ External pass device
 - buck converters
 - boost converters



Portable products are fuelling the race towards more sophisticated functionality in smaller form-factors, making improvements in power density and power dissipation key design elements. For today's space-constrained and power hungry applications, our MOSFETs in SOT883 offer the perfect solution, delivering superior thermal performance combined with the ultimate in miniaturization.

Product table

Product	Maximum values					Typical values						
	V_{ds}	V_{gs}	I_d (A)		P_d	R_{pSon} (mΩ)				Q_g	Q_{gd}	C_{iss}
	V	V	25°	100°	W	10V	4.5V	2.5V	1.8V	nC	nC	pF
PMZ250UN	20	8	2.28	1.44	1.25		250	320	420	0.89	0.18	45
PMZ270XN	20	12	2.15	1.36	1.25		270	440		0.72	0.18	34
PMZ350XN	30	12	1.87	1.18	1.25		350	520		0.65	0.18	37
PMZ390UN	30	8	1.78	1.13	1.25		390	460	550	0.89	0.20	43
PMZ760SN	60	20	1.22	0.77	1.25	760	1100			1.05	0.22	23



DIMENSIONS (mm are the original dimensions)

UNIT	$A^{(1)}$	A_1 max.	b	b_1	D	E	e	e_1	L	L_1
mm	0.50 0.46	0.03	0.20 0.12	0.55 0.47	0.62 0.55	1.02 0.95	0.35	0.65	0.30 0.22	0.30 0.22

Note

1. Including plating thickness