

Product Summary

The ZM027N03I combines advanced trench MOSFET technology with a low resistance package to provide extremely low $R_{DS(ON)}$. This device is ideal for load switch and battery protection applications.

$$V_{DS} = 30V$$

$$R_{DS(ON)} = 2.7m$$

$$I_D = 95A$$

Advance high cell density Trench technology $_{DS(ON)}$ to minimize conductive loss

0

nd Synchronous Rectifier

$T_C = 25$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current	$I_{D@TC=25}$	95	A
	$I_{D@TC=75}$	72	A
	$I_{D@TC=100}$	60	A
Pulsed Drain Current	I_{DM}	220	A
Total Power Dissipation	$P_D@TC=25$	70	W
Total Power Dissipation	$P_D@TA=25$	2.8	W
Operating Junction Temperature	T_J	-55 to 175	
Storage Temperature	T_{STG}	-55 to 175	
Single Pulse Avalanche Energy ($L=0.5mH, V_{GS}=10V, R_g=25 -$)	E_{AS}	350	mJ



Single Pulse Avalanche Energy (L=0.1mH,VGS=10V,Rg=25 -)	E_{AS}	180	mJ
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Thermal resistance

Parameter	Symbol	Min.	Typ.	Max.	Unit
Thermal resistance, junction - case	R_{thJC}	-	-	1.8	C/W
Thermal resistance, junction - ambient	R_{thJA}	-	-	45	C/W
Soldering temperature, wave soldering for 10s	T_{sold}	-	-	265	C



Parameter	Symbol	Condition	Min.	Typ	Max.	Unit
Drain-Source Breakdown Voltage	BV_{DSS}					



Turn-ON Delay time

$t_{D(on)}$

12

$V_{GS}=10V, V_{DS}=15V$

$R_G = 3.3 \Omega, I_D = 15A$

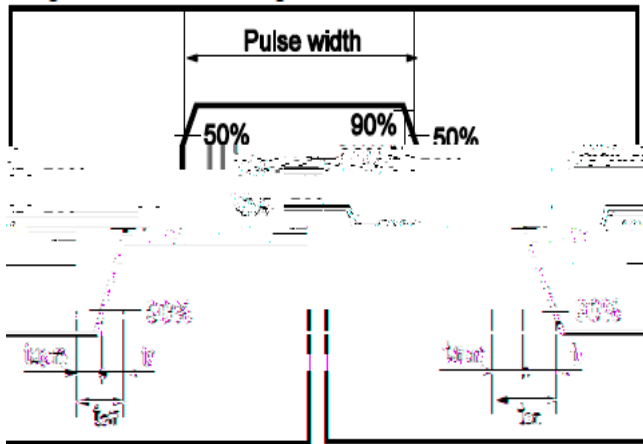




Figure 11. Gate-to-Source and
Drain-to-Source Voltage vs. Total Charge

Fig.12 Capacitance Variation

Fig.17 Gate Charge Waveform





Dimensions(TO-251)

Unit mm