$_{DS(ON)}$(at V_{GS}=10V) 10 mohm

- $R_{DS(ON)}$(at V_{GS}=4.5V) 15 mohm
- 100% EAS Tested
- 100% V_{DS} Tested

General Description

- Split gate trench MOSFET technology
- High density cell design for low $R_{DS(ON)}$
- High Speed switching
- Moisture Sensitivity Level 1

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- Part no. with suffix “Q” means AEC-Q101 qualified

Applications

- DC-DC Converters
- Power management functions
- Industrial and Motor Drive application
- 12V, 24V Automotive systems

■ Absolute Maximum Ratings (T_A=25 unless otherwise noted)

Parameter		Symbol	N-Die1/Die2	Unit 3 1
	T_A = 25		12	
	T_A=100		7	
Pulsed Drain Current [A]		I_{DM}	150	A
Avalanche energy [B]		E_{AS}	162	mJ
Total Power Dissipation[C] θJ	T_C=25	P_D	69	W
	T_C=100		27	
	T_A=25		2.5	
	T_A=100		1	
Junction and Storage Temperature Range		T_J ,T_{STG}	-55~+150	

■Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient [D]	Steady-State	$R_{\theta JA}$	40	50	/W
Thermal Resistance Junction-to-Case	Steadx ˣ yatd	R			

■ NMOS(Die1/Die2) Typical Performance Characteristics

Figure1. Output Characteristics

Figure2. Transfer Characteristics

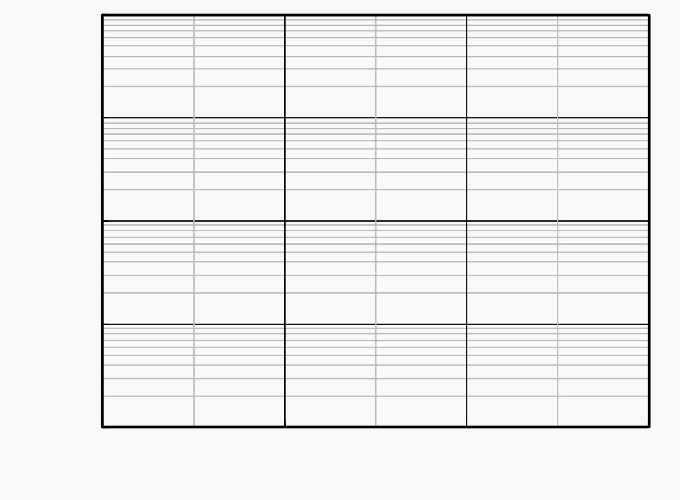


Figure3. Capacitance Characteristics

Figure4. Gate Charge

Figure5. On-Resistance vs. Gate to Source Voltage

Figure6. Normalized On-Resistance

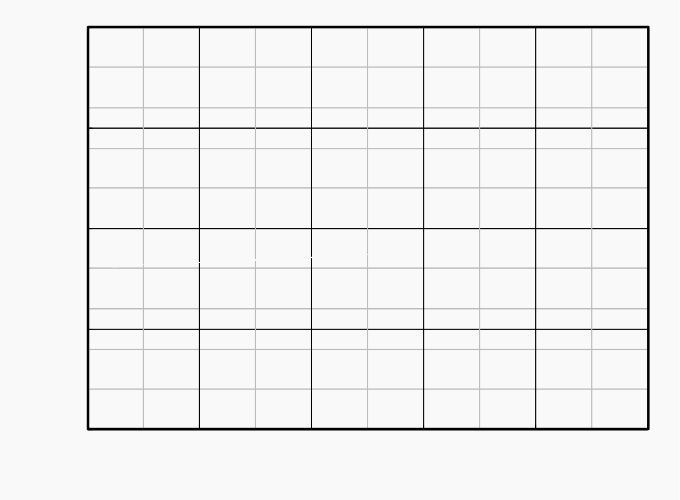


Figure 7. RDS(on) VS Drain Current

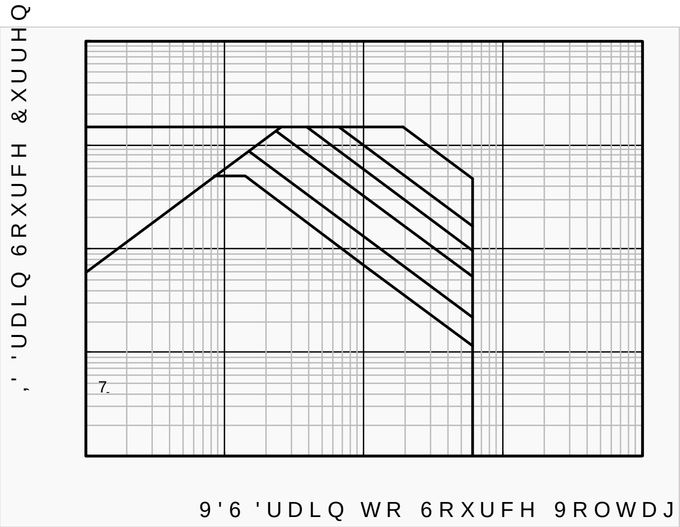
Figure 8. Forward characteristics of reverse diode

Figure 9. Normalized breakdown voltage

Figure 10. Normalized Threshold voltage

Figure 11. Current dissipation

Figure 12. Power dissipation



)LJXUH   0D[LPHXPW7UKHQUVPDO ,PSHGDQFH   )LJXUH   6DIH 2SHUDWL