



YJGD50G06AQ

- $R_{DS(ON)}$ (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
- 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
Pulsed Drain Current ^A	I_{DM}	150	A
Avalanche energy ^B	EAS	162	mJ
Total Power Dissipation ^C	P_D	69	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	

Thermal resistance

Parameter	Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient ^D	$R_{\theta JA}$	40	50	$^{\circ}C/W$
Thermal Resistance Junction-to-Case	$R_{\theta JC}$	10		$^{\circ}C/W$



■ NMOS(Die1/Die2) Typical Performance Characteristics

Figure1. Output Characteristics

Figure2. Transfer Characteristics

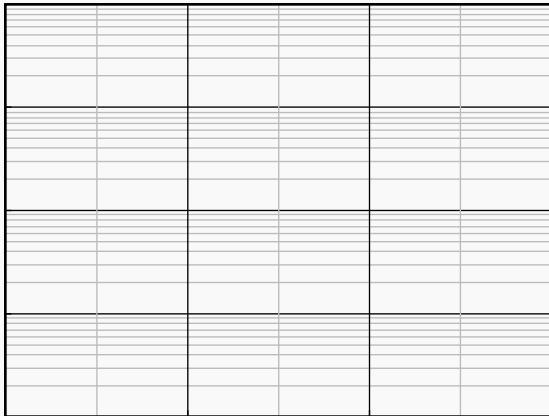


Figure3. Capacitance Characteristics

Figure4. Gate Charge

Figure5. On-Resistance vs. Gate to Source Voltage

Figure6. Normalized On-Resistance

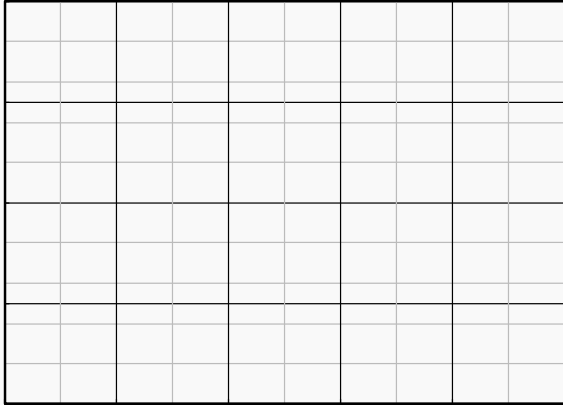


Figure 7. $R_{DS(on)}$ VS Drain Current

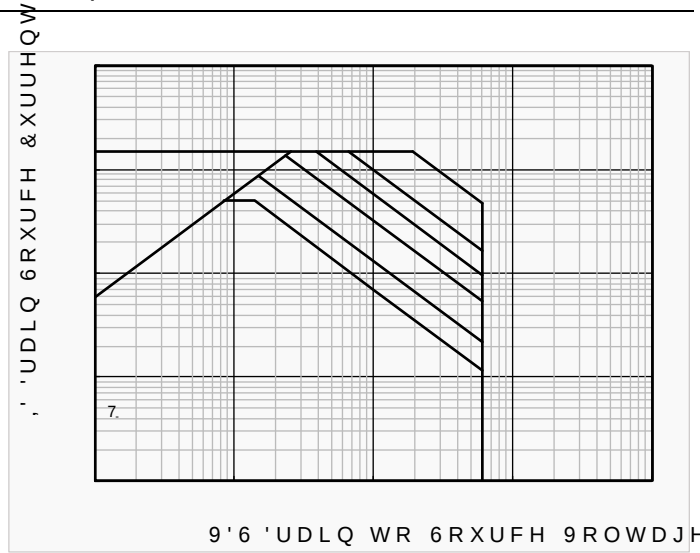
Figure 8. Forward characteristics of reverse diode

Figure 9. Normalized breakdown voltage

Figure 10. Normalized Threshold voltage

Figure 11. Current dissipation

Figure 12. Power dissipation



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

