

**Key Features**

It combines advanced trench MOSFET technology with a low resistance package to provide extremely low  $R_{DS(ON)}$ .

**Key Features**

Trench technology  
 $R_{DS(ON)}$  to minimize conductive loss

**Key Features**

0<sup>th</sup> Synchronous Rectifier

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Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	40	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current	$I_{D@TC=25}$	100	A
	$I_{D@TC=75}$	76	A
	$I_{D@TC=100}$	63	A
Pulsed Drain Current	$I_{DM}$	300	A
Total Power Dissipation	$P_D@TC=25$	80	W
Total Power Dissipation	$P_D@TA=25$	2.4	W
Operating Junction Temperature	$T_J$	-55 to 150	
Storage Temperature	$T_{STG}$	-55 to 150	
Single Pulse Avalanche Energy ( $L=0.5mH, V_{GS}=10V, R_g=25 \Omega, t_{J}=25 \mu s$ )	$E_{AS}$	860	mJ

**Product Summary**
 $V_{DS}=40V$ 
 $R_{DS(ON)}=2.5m\Omega$ 
 $I_D=100A$



Single Pulse Avalanche Energy  
( $L=0.1\text{mH}$ ,  $V_{GS}=10\text{V}$ ,  $R_g=25$ )



Fig.5 On-Resistance VS Gate Source Voltage

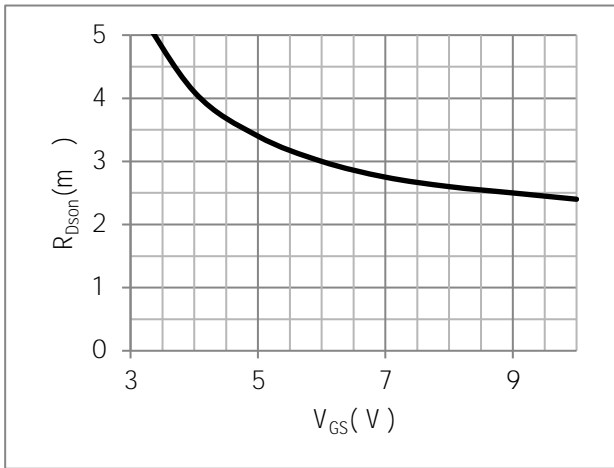


Fig.6 On-Resistance V.S Junction Temperature

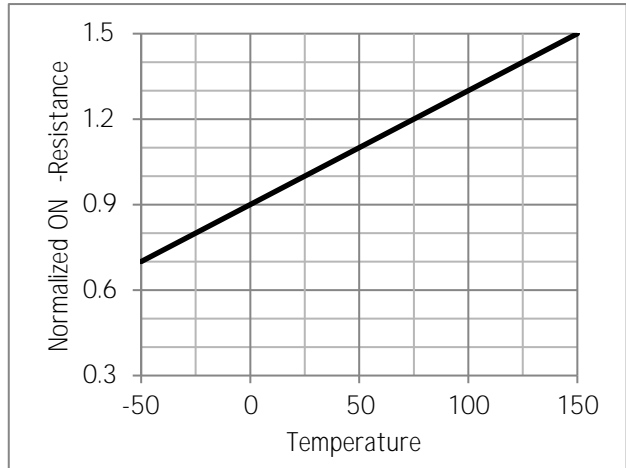


Fig.7 Gate Charge Characteristics

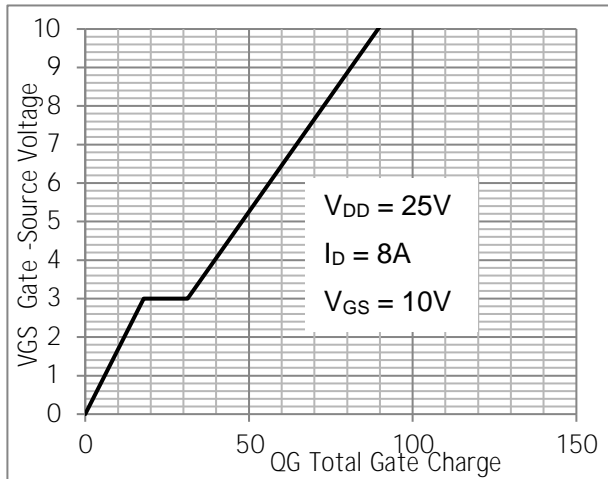


Fig.8 Capacitance vs  $V_{DS}$

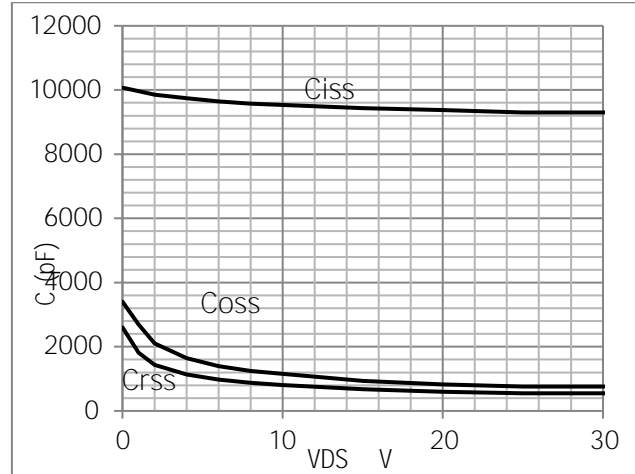


Fig.9 SOA Maximum Safe Operating Area

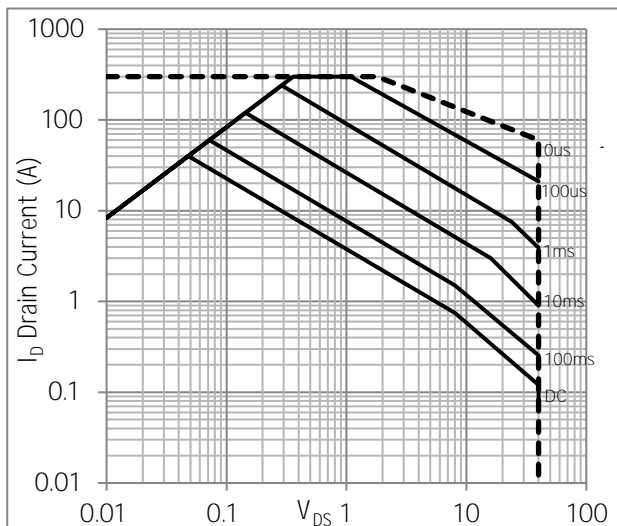


Fig.10  $I_D$ -Junction Temperature

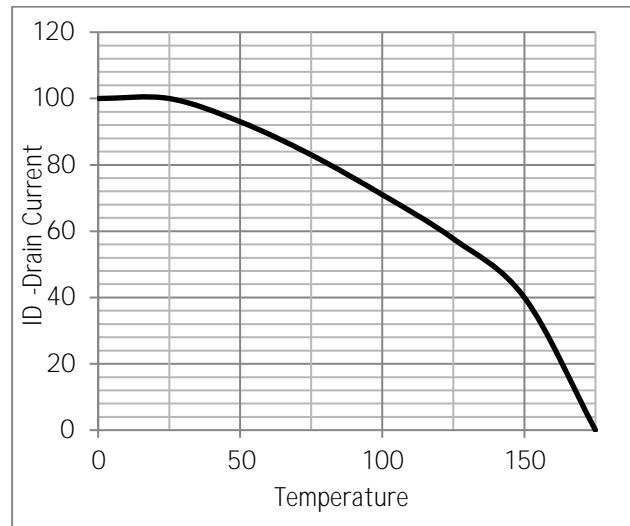


Figure 11. Diode Forward Voltage vs. Current

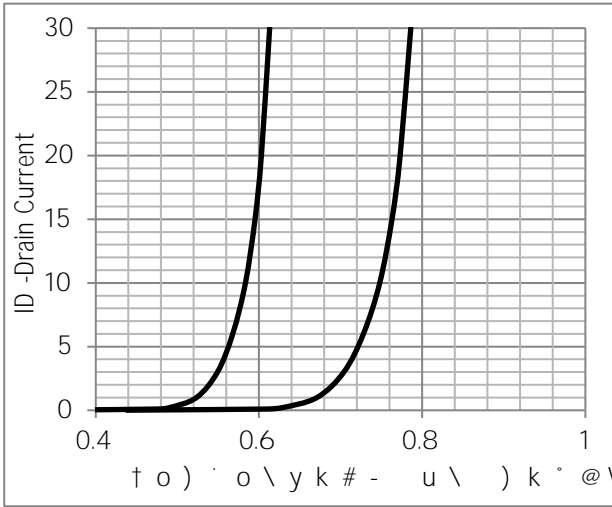


Figure 12. Transfer Characteristics

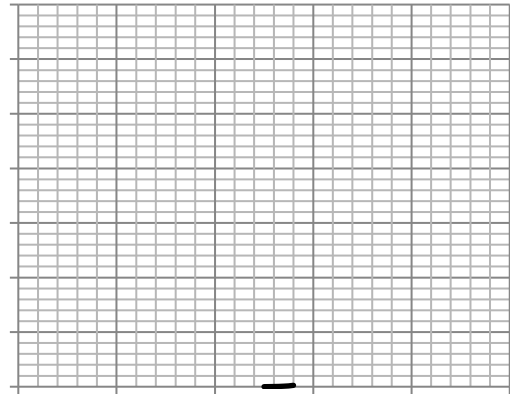


Fig.13 Switching Time Measurement Circuit

Fig.14 Gate Charge Waveform

Fig.15 Switching Time Measurement Circuit

Fig.16 Gate Charge Waveform





8 ] a Y b g ] 251g fl H C

Unit mm

SYMBOL	min	max	SYMBOL	min	max
A	2.10	2.50	D	6.35	6.80
A1	0.95	1.30	D1	5.10	5.50
B	0.80	1.25	E	5.30	6.30
b	0.50	0.80	e	2.24	2.35
b1	0.70	0.90	E1	4.43	4.73
c	0.45	0.60	L	7.00	9.40
c1	0.45	0.60			