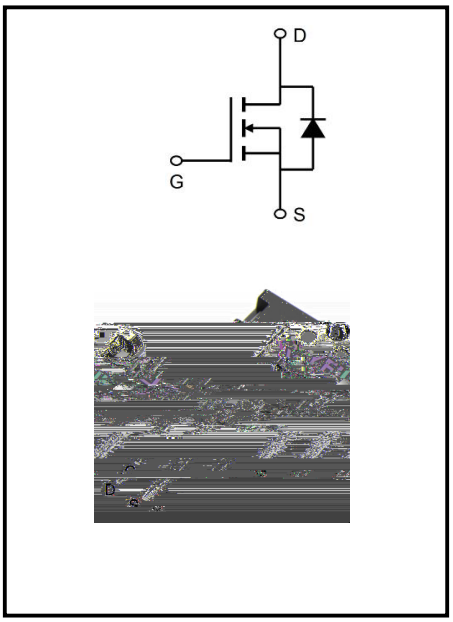
1200V N-Channel Silicon Carbide Power MOSFET

MAIN CHARACTERISTICS

I_D	
V_{DS}	
R_{DSON}-typ(@V_{GS}=10V)	(Typ:80mΩ)



APPLICATIONS

-
-
-
-

FEATURES

-
-
-
-

Maximum Ratings at Tc=25°C unless otherwise specified

Characteristics	Symbols	Value	Units
	V_{DS}		V
	V_{GS}		V
	V_{GSop}		V
	I_D		A
	I_{DM}		A
	P_D		W
			W/ns
	T_J		°C
	T_{STG}		°C
	$R_{\theta JC}$		°C/W
	$R_{\theta JA}$		°C/W

Typical Characteristics

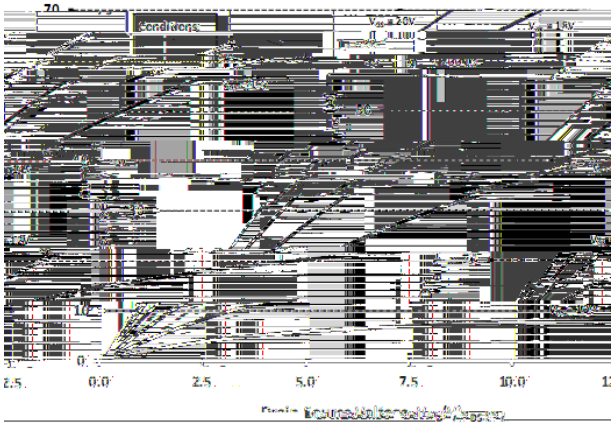


Figure 1. Output Characteristics T_j= -55

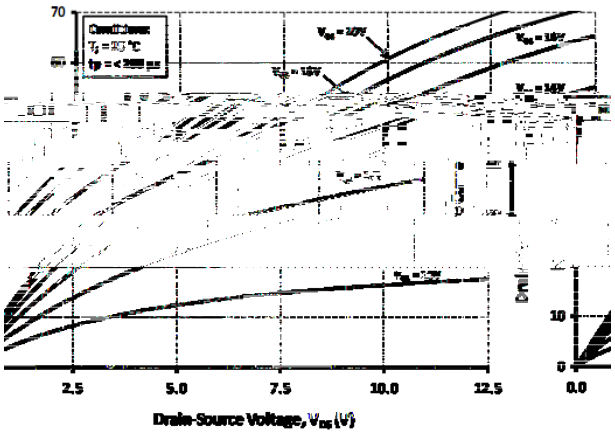


Figure 2 .Output Characteristics T_j= 25

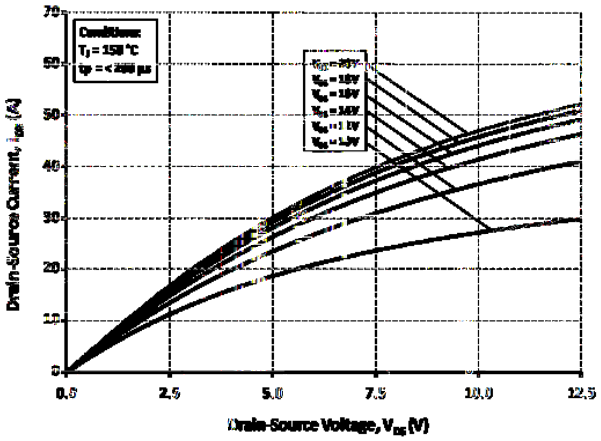


Figure 2 .Output Characteristics T_j= 25

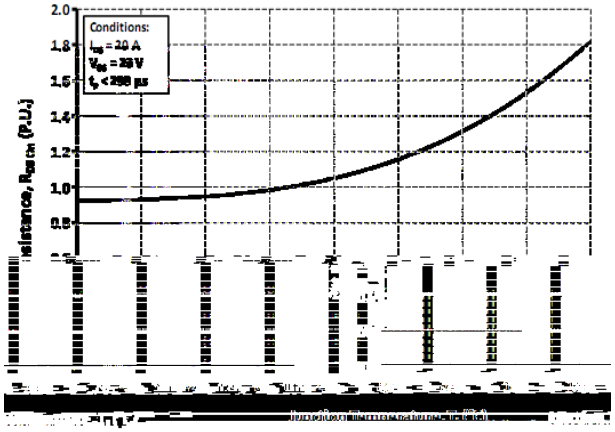


Figure 4. Normalized On-Resistance vs. Temperature

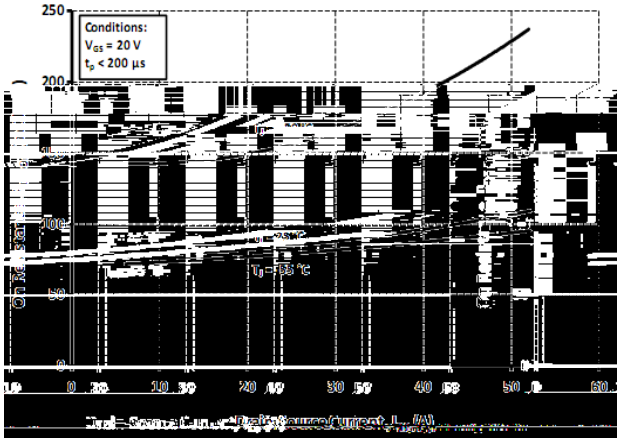


Figure 5. On-Resistance vs. Drain Current For Various Temperatures

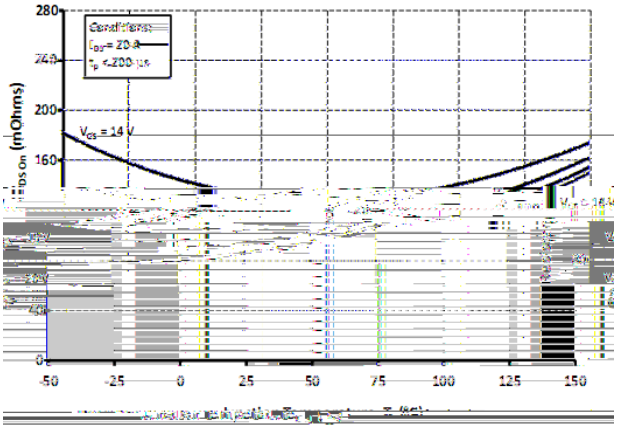


Figure 6. On-Resistance vs. Temperature For Various Gate Voltage

Typical Characteristics (Continued)

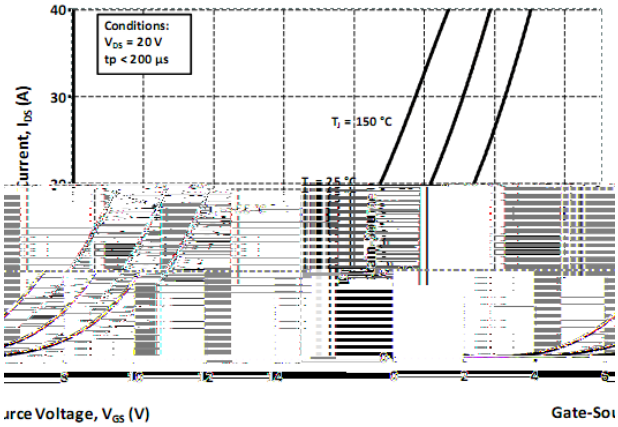


Figure 7. Transfer Characteristic for Various Junction Temperatures

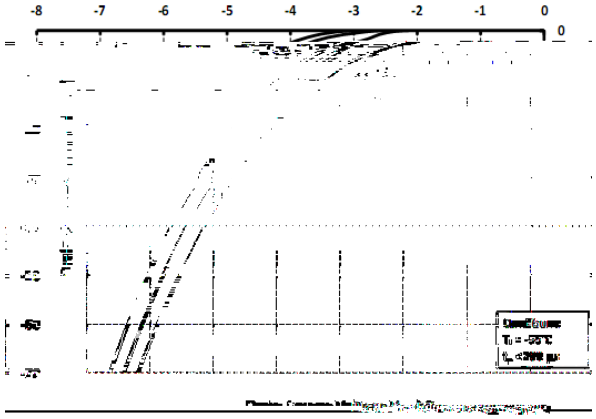


Figure 8. Body Diode Characteristic at -55 ºC

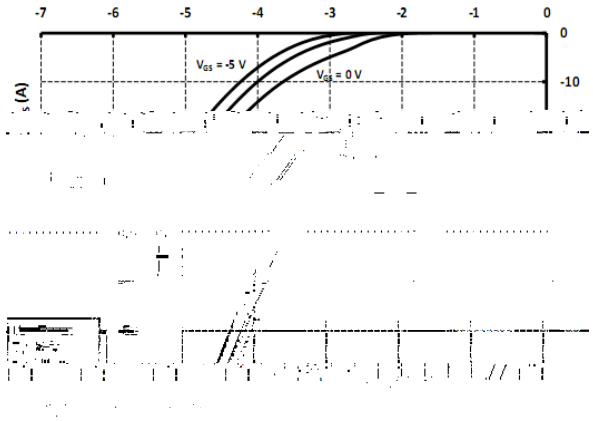


Figure 9. Body Diode Characteristic at 25 ºC

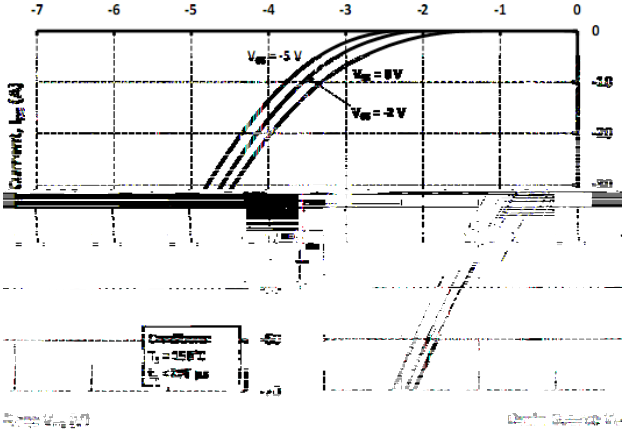


Figure 10. Body Diode Characteristic at 150 ºC

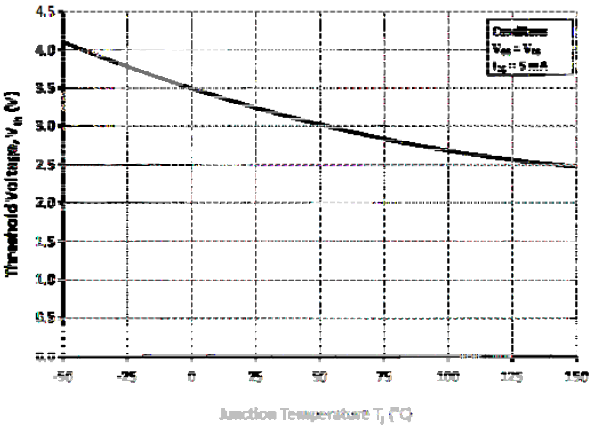


Figure 11. Threshold Voltage vs. Temperature

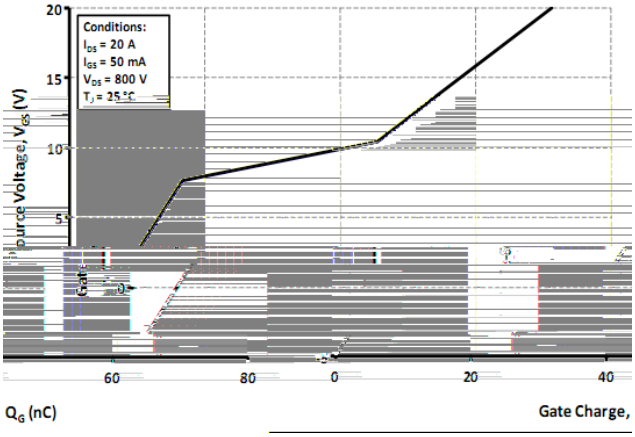


Figure 12. Gate Charge Characteristics

Typical Characteristics (Continued)

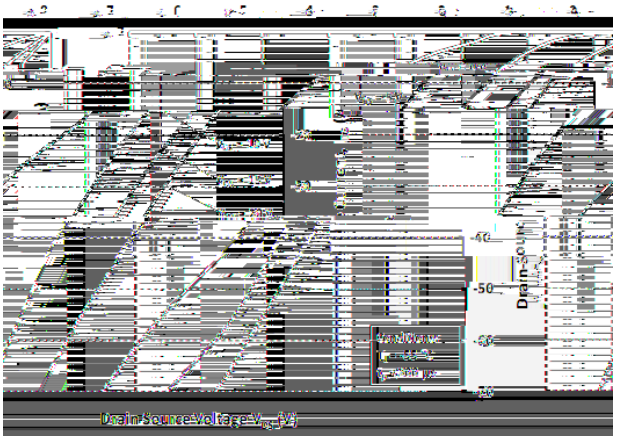


Figure 13. 3rd Quadrant Characteristic at -55 ºC

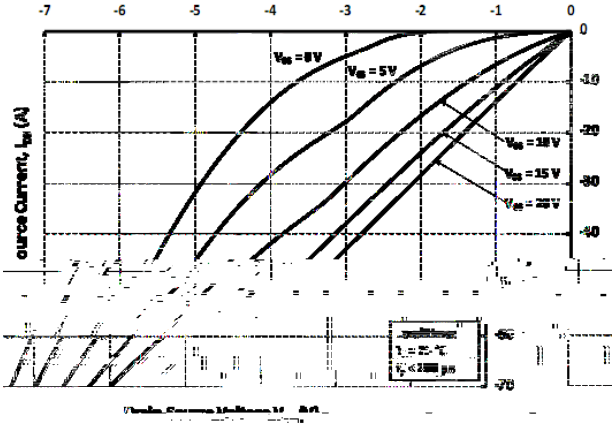


Figure 14. 3rd Quadrant Characteristic at 25 ºC

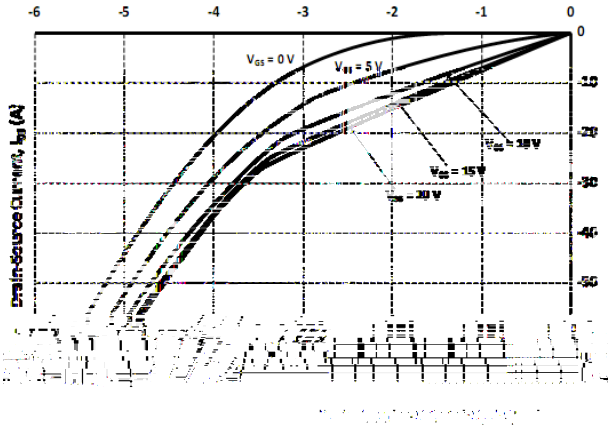


Figure 15. 3rd Quadrant Characteristic at 150 ºC

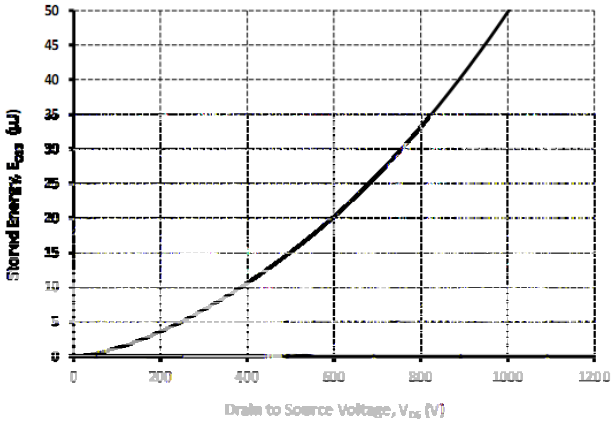


Figure 16. Output Capacitor Stored Energy

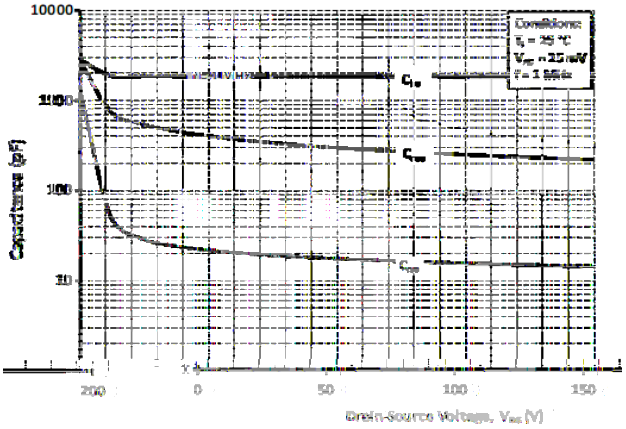


Figure 17. Capacitances vs. Drain-Source Voltage (0 - 200V)

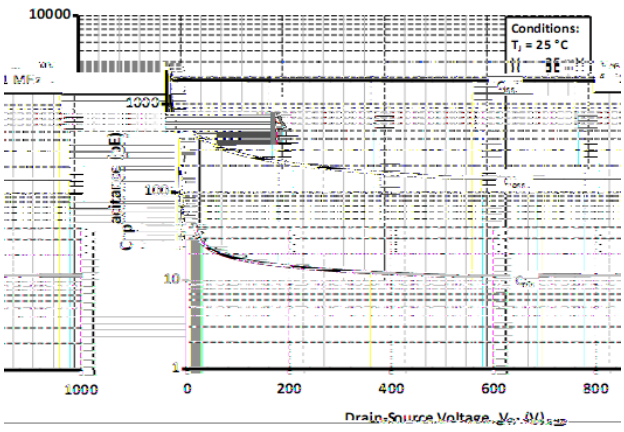
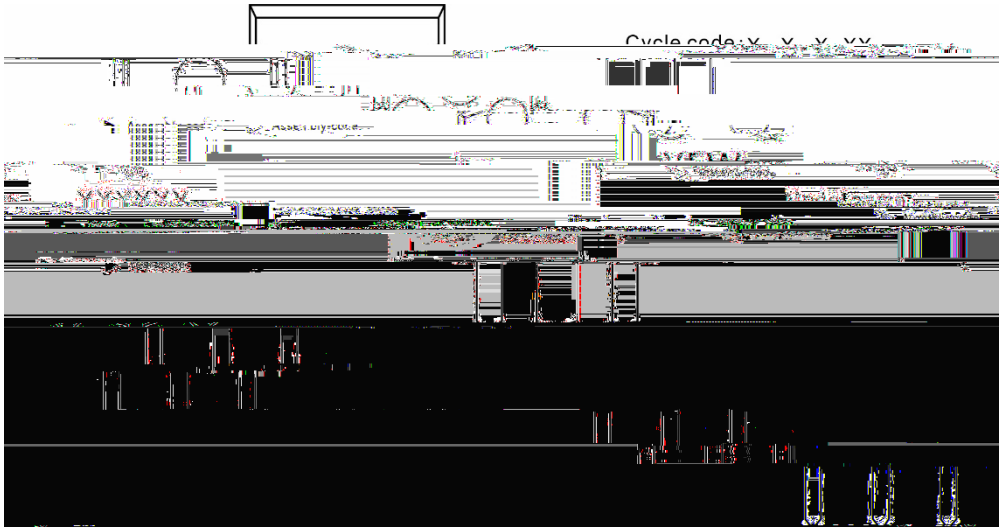


Figure 18. Capacitances vs. Drain-Source Voltage (0 - 1000V)

Marking Diagram

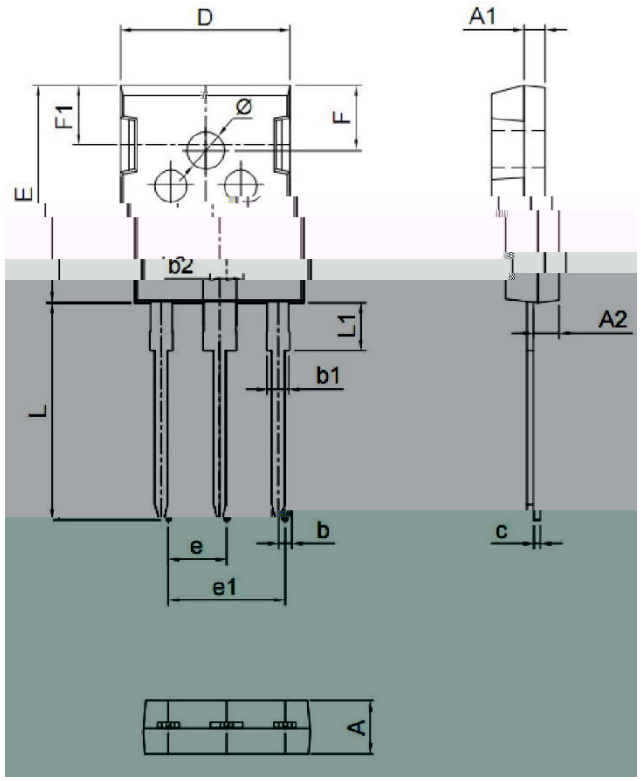


Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
YFWM3080120APG3	TO-247	0.209oz(5.93g)	30pcs/tube	600PCS/Box 2400PCS/Carton

Package Dimensions

TO-247



Symbol	Dimensions in mm		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	4.90	5.10	0.193	0.201
A1	1.90	2.10	0.075	0.083
A2	2.29	2.54	0.090	0.100
b	1.00	1.40	0.039	0.055
b1	2.00	2.20	0.079	0.087
b2	3.00	3.20	0.118	0.126
c	0.50	0.70	0.020	0.028
D	15.75	16.05	0.620	0.632
E	20.20	20.80	0.795	0.819
e	5.45 (BSC)		0.215 (BSC)	
e1	10.90 (BSC)		0.429 (BSC)	
F	6.05	6.25	0.238	0.246
F1	5.80	6.00	0.228	0.236
L	20.10	20.40	0.791	0.803
L1	4.05	4.35	0.159	0.171
Φ	3.50	3.70	0.138	0.146

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed