Feature

- High Speed Power Smooth Switching, Logic Level
- Enhanced Body diode dv/dt capability
- Enhanced Avalanche Ruggedness
- 100% UIS Tested, 100% Rg Tested
- Lead Free

V

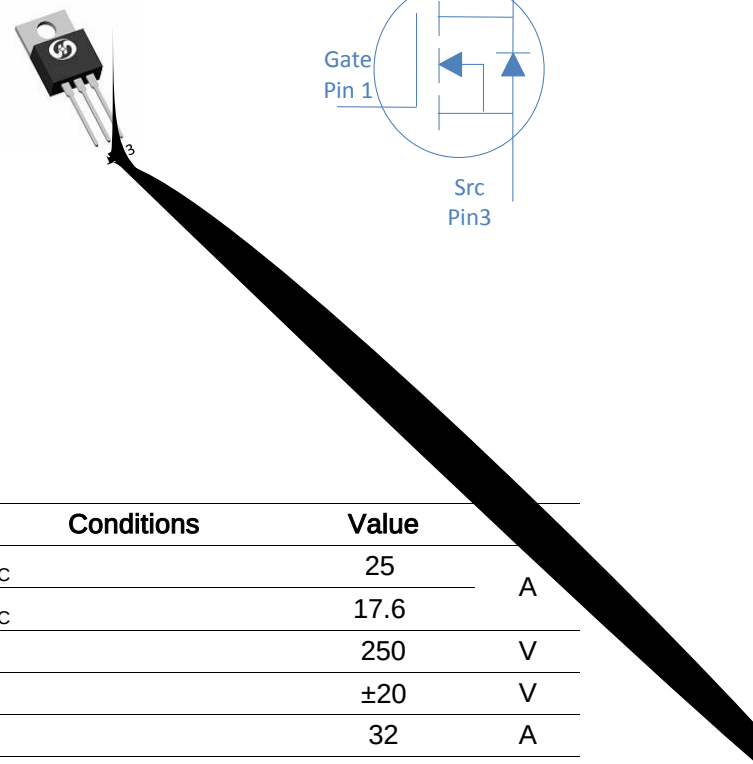
mΩ

93

Application

- Synchronous Rectification in SMPS
- Hard Switching and High Speed Circuit
- Power Tools
- UPS
- Motor Control

TO-220



TO-220

Absolute Maximum Ratings at T_j

		Conditions	Value	
Continuous Drain Current	I_D	T_C	25	A
		T_C	17.6	
Drain to Source Voltage	V_{DS}	-	250	V
Gate to Source Voltage	V_{GS}	-	±20	V
Pulsed Drain Current	I_{DM}	-	32	A
Avalanche Energy, Single Pulse	E_{AS}	L=0.4mH, T_C	1.8	mJ
Power Dissipation	P_D	T_C	167	
Operating and Storage Temperature	T_J, T_{stg}	-	-55 to175	

Absolute Maximum Ratings

Parameter	Symbol	Max	Unit
Thermal Resistance Junction-Case	R	0.9	
Thermal Resistance Junction-Ambient	R	46	

Fig 1. Typical Output Characteristics

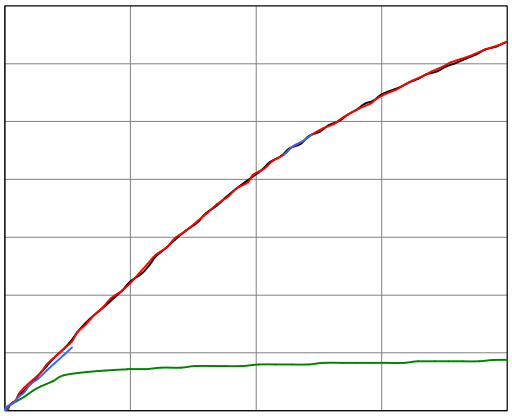


Figure 2. On-Resistance vs. Gate-Source Voltage

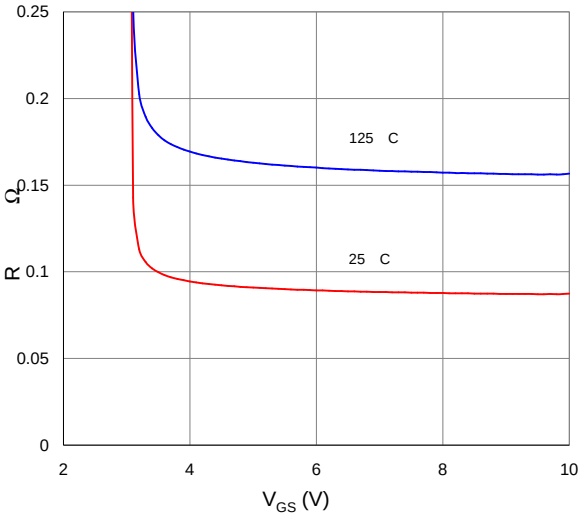
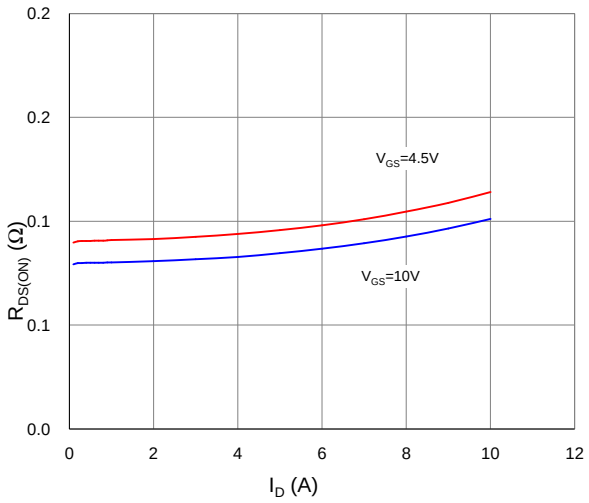


Figure 3. On-Resistance vs. Drain Current and Gate Voltage



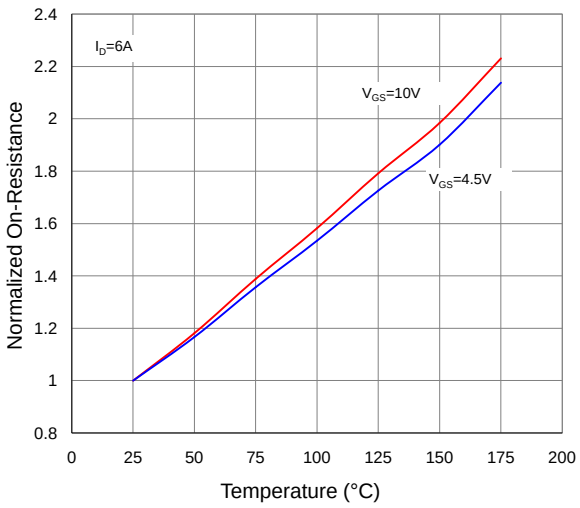
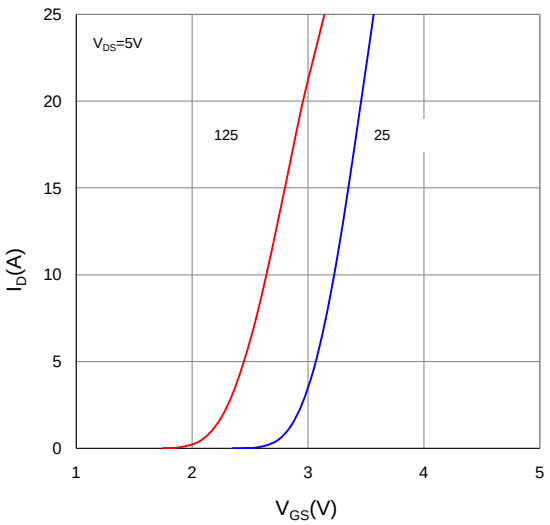


Figure 6. Typical Source-Drain Diode Forward Voltage



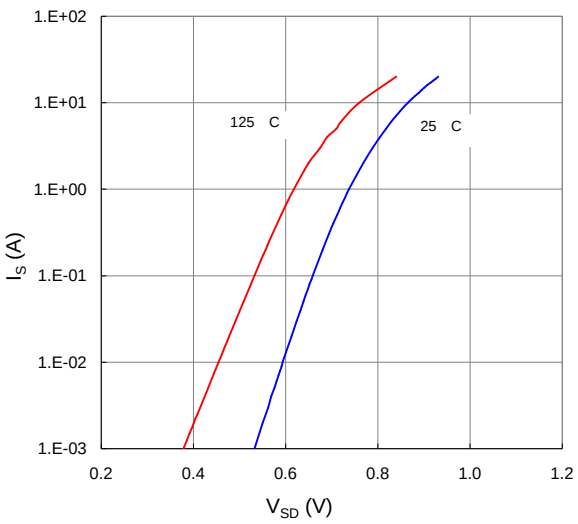


Figure 7. Typical Gate-Charge vs. Gate-to-Source Voltage	Figure 8. Typical Capacitance vs. Drain-to-Source Voltage

	Figure 10. Maximun Drain Current vs. Case Temperature

Inductive switching Test

Gate Charge Test

Diode Recovery Test

TO-220, 3 leads

Symbol	Min	Nom	Max
A	9.66	9.97	10.28
A2	9.80	10.00	10.20
	15.60	15.70	15.80
C	12.70	13.48	14.27
D	4.30	4.50	4.70
E	9.00	9.20	9.40
F		2.54	
G1	1.32	1.52	1.72
G2	0.70	0.82	0.95
G3	0.45	0.52	0.60
H	3.50	3.60	3.70
I	2.70	2.80	2.90
J	15.70	15.97	16.25
K	2.20	2.40	2.60
L	1.15	1.27	1.40
N	6.40	6.60	6.80