600V N-channel Super Junction MOSFET

MAIN CHARACTERISTICS

I_D	30A
V_{DS}	600V
R_{DSON}-typ(@V_{GS}=10V)	130mΩ(Typ:120mΩ)

FEATURES

- Low gate charge
- Low RDS(on) per chip area(Low FOM)
- Very low switching and conduction loss
- Extremely high commutation ruggedness

APPLICATIONS

- Solar inverters
- LCD/LED/PDP TV
- Telecom/Server Power supplies
- AC-DC Power Supply

MECHANICAL DATA

- Case: TO-247/AP
- Mounting Position: Any
- Molded Plastic: UL Flammabilit

Electrical Characteristics at Tc=25°C unless otherwise specified

Characteristics	Test Condition	Symbols	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	V_{GS}=0V, I_D=250uA	BV_{DSS}	600	-	-	V
Drain-Source Leakage Current	V_{DS} =600 V, V_{GS} = 0 V	I_{DSS}	-	-	1	μA
Gate Leakage Current	V_{GS} = ± 30 V, V_{DS} = 0 V	I_{GSS}			±100	nA
Gate-Source Threshold Voltage	V_{DS}=V_{GS}, I_D=250uA	$V_{GS(th)}$	2	-	4	V
Drain-source on-state resish						

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Ratings and Characteristic Curves

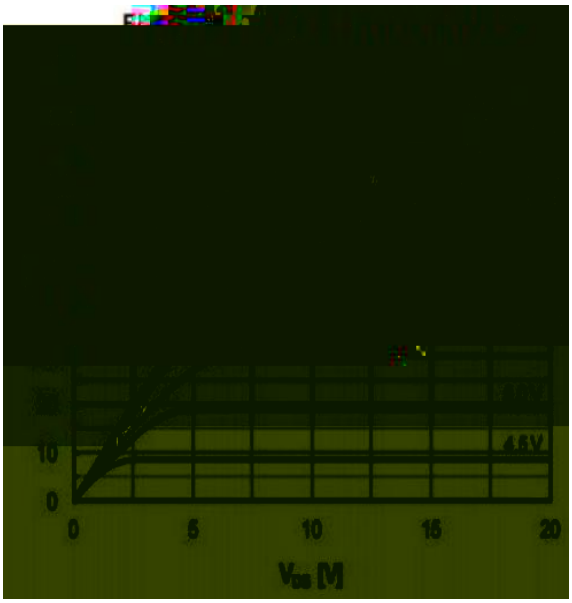


Figure2. Transfer Characteristics

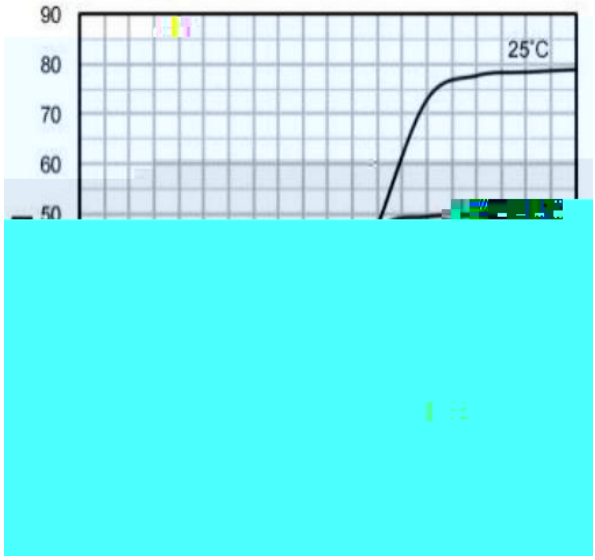


Figure 3. On-Resistance VS.Drain Current

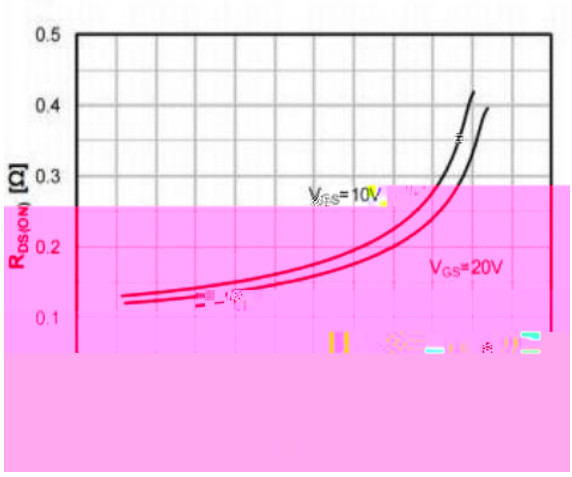




Figure 5. Gate Charge

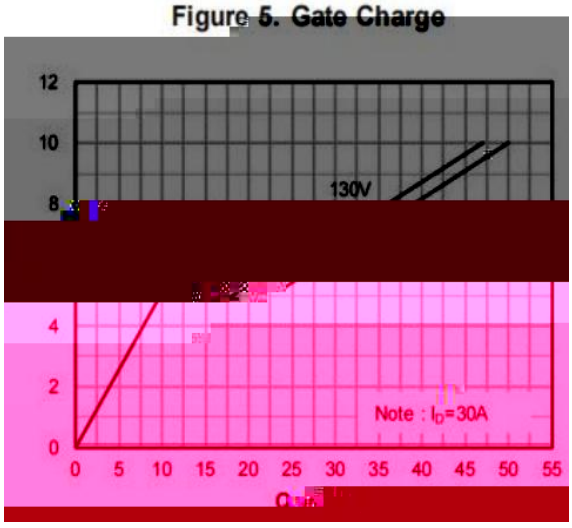
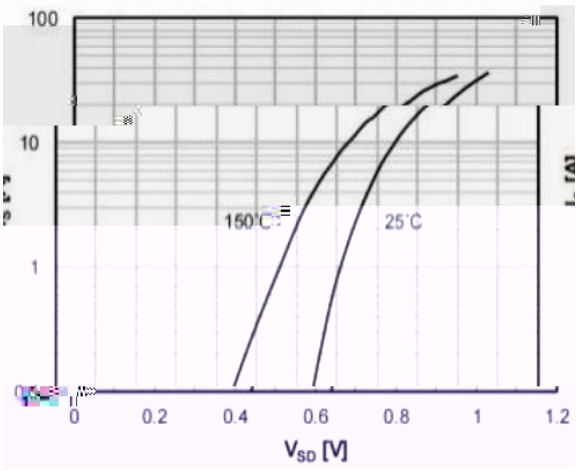


Figure 6.Body Diode Forward Voltage



Ratings and Characteristic Curves

Figure 7. On-Resistance vs. Junction Temperature

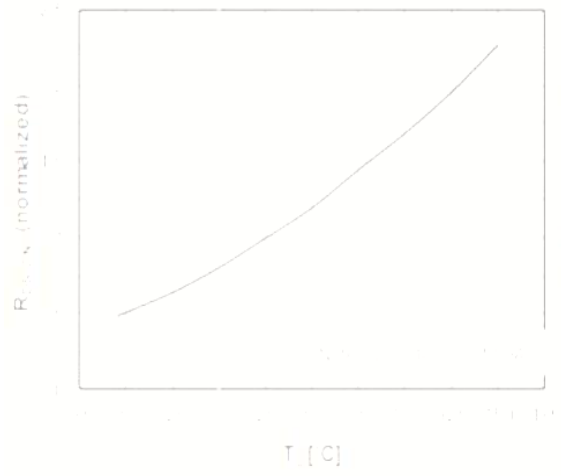


Figure 8. Bearkdown Voltage vs. Junction Temperature

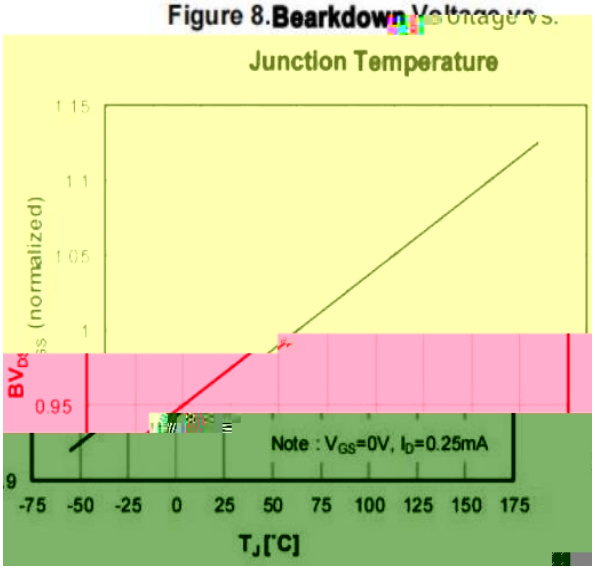


Figure 9. Safe operation area

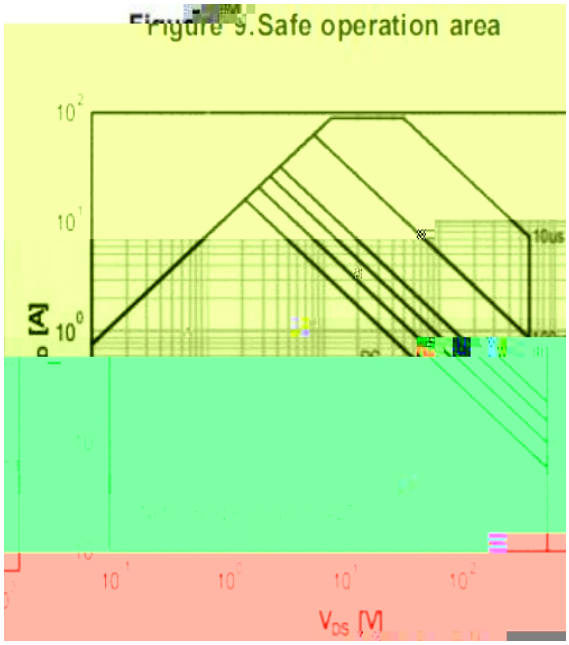
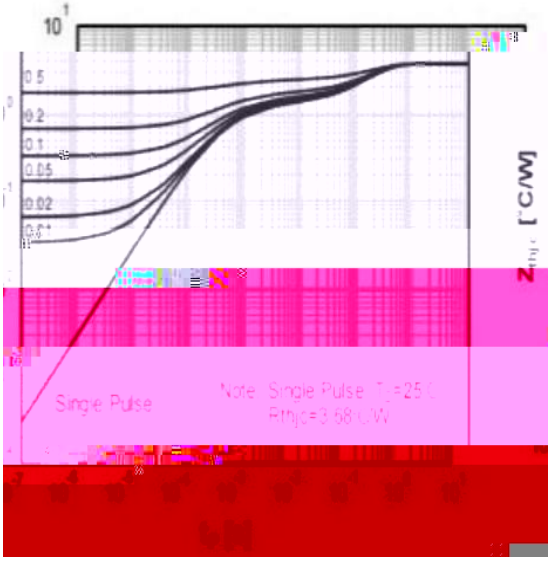


Figure 10. Transient Thermal Impedance



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