

DESCRIPTION

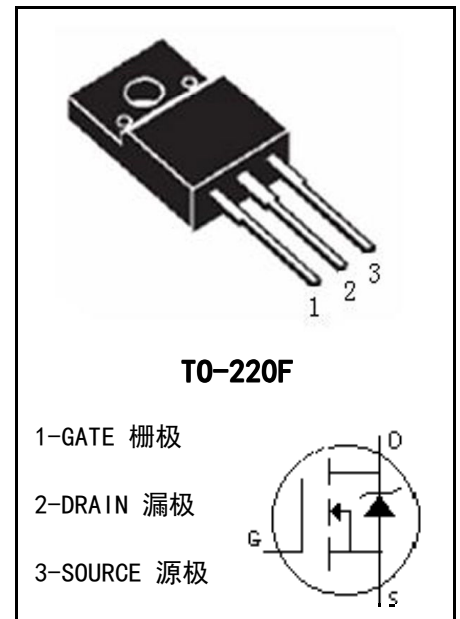
- ELECTRONIC BALLAST
- ELECTRONIC TRANSFORMER
- SWITCH MODE POWER SUPPLY

FEATURES:

- LOW THERMAL RESISTANCE
- HIGH INPUT RESISTANCE
- FAST SWITCHING
- ROHS COMPLIANT

MAXIMUM RATINGS (T_c=25°C)

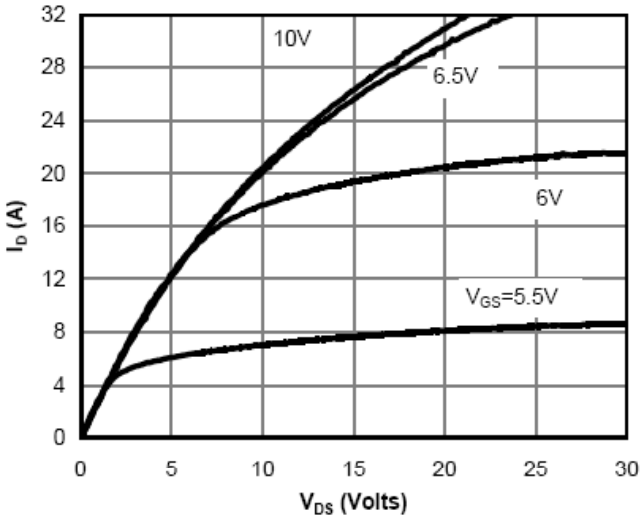
PARAMETER	SYMBOL	VALUE	UNIT
Drain-source Voltage	VDS	500	V
gate-source Voltage	VGS	±30	V
Continuous Drain Current (T _C =25°C)	ID	16	A
Drain Current-Pulsed	IDM	64	A
Total Dissipation	PD	55	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-150	°C
Single Pulse Avalanche Energy	EAS	600	mJ

MECHANICAL

ELECTRONIC CHARACTERISTICS (T_c=25°C)

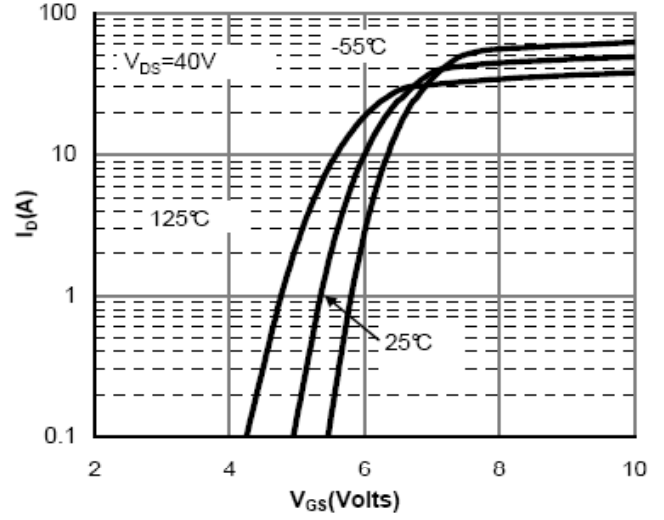
CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Drain-source Breakdown Voltage	BVDSS	VGS=0V, ID=250 μA	500		V
Gate Threshold Voltage	VGS (TH)	VGS=VDS, ID=250 μA	3	5.5	V
Drain-source Leakage Current	IDSS	VDS=500V, VGS=0V		1	uA
Drain-Source Diode Forward Voltage	VSD	VGS=0V, IS=16A		1.5	V
Gate-body Leakage Current (VDS = 0)	IGSS	VGS=±30V		±100	nA
Static Drain-source On Resistance	RDS (ON)	VGS=10V, ID=8A		0.38	Ω
Thermal Resistance Junction-case	RthJ-c			2.3	°C/W



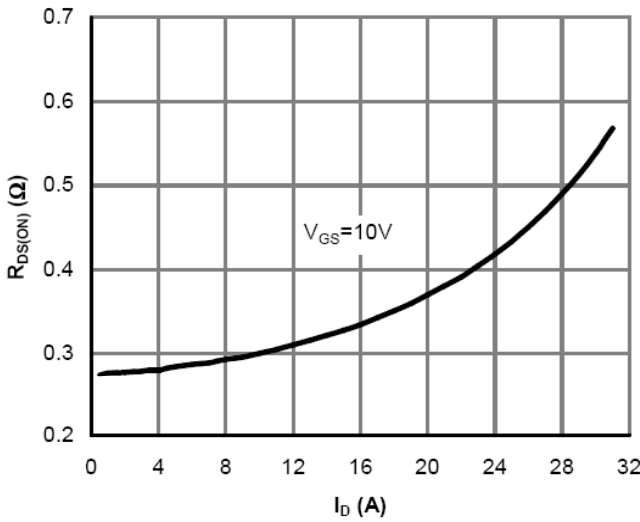
CHARACTERISTICS CURVE



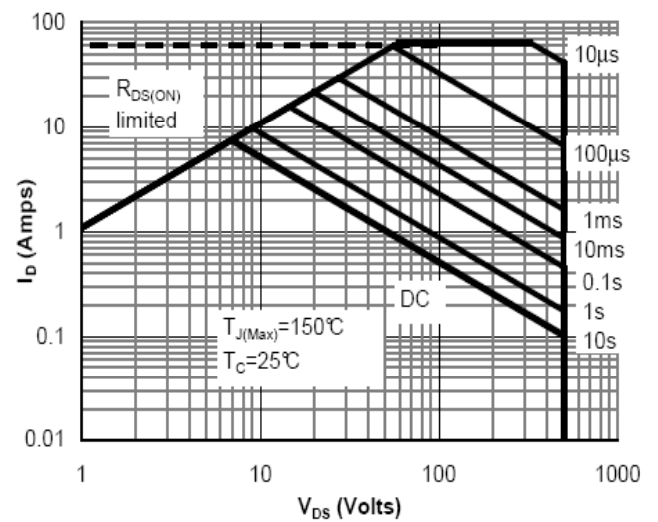
Output Characteristic



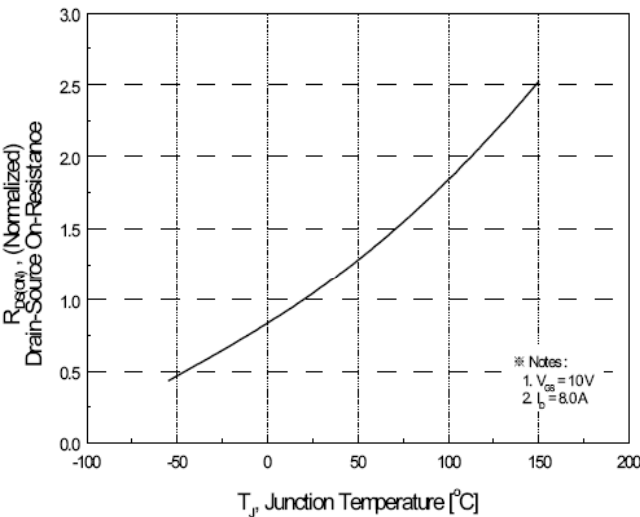
Transfer Characteristic



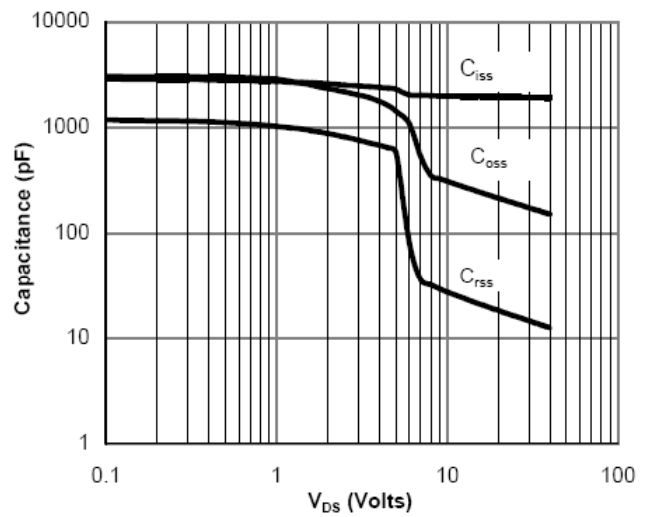
On Resistance Vs Drain Current



Safe Operation Area



On Resistance Vs Junction Temperature



Capacitance



CHARACTERISTICS CURVE

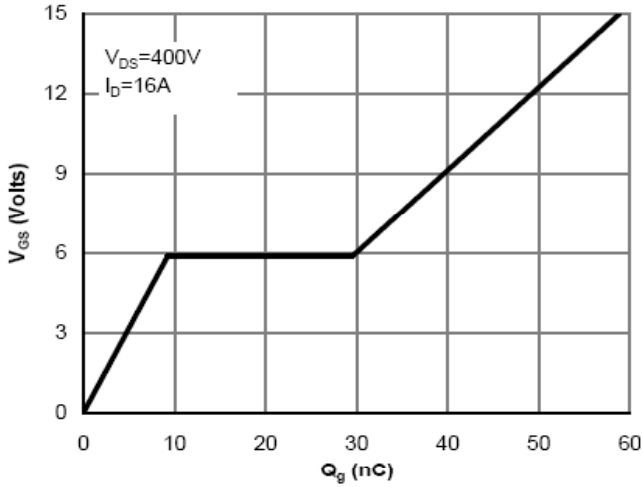
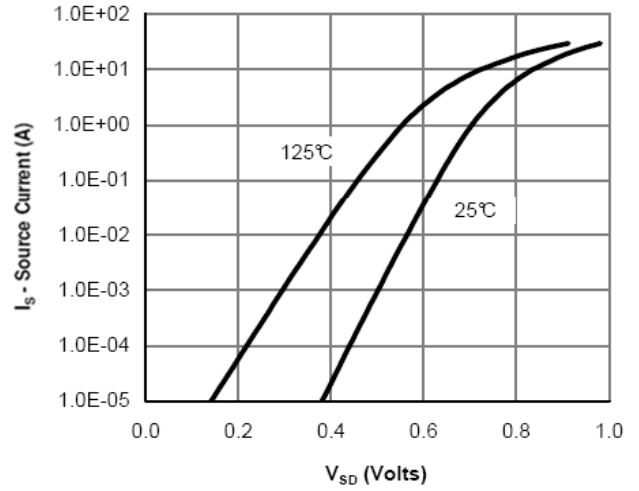


Figure 7: Gate-Charge Characteristics

Gate Charge Waveform



Source-Drain Diode Forward Voltage

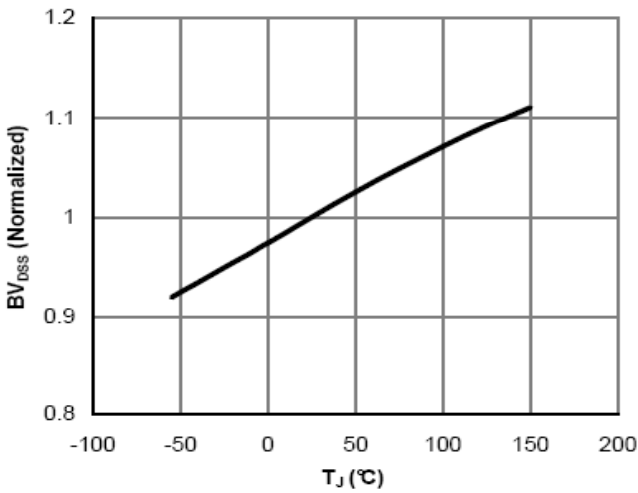


Figure 5: Break Down vs. Junction Temperature

Breakdown Voltage Vs Junction Temperature



TO-220F MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4.2		4.7	E1	6.5	7	7.5
A1	2.3		2.9	e	2.44	2.54	2.64
b	0.65		0.9	L	12.5		14.3
b1	1.1		1.7	L1	9.45		10.05
b2	1.2		1.4	L2	15		16
c	0.35		0.65	L3	3.2		4.4
D	14.5		16.5	ΦP	3		3.3
D1	6.1		6.9	Q	2.5		2.9
E	9.6		10.3				

