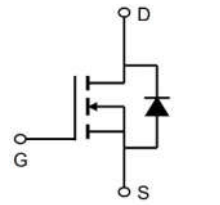
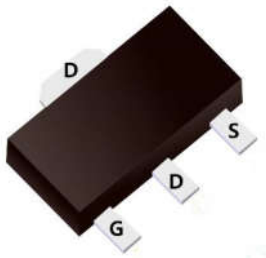
30V N-CHANNEL ENHANCEMENT MODE FIELD EFFECT TRANSISTOR

MAIN CHARACTERISTICS

I_D	5.8A
V_{DS}	30V
R_{DSON}-typ(@V_{GS}=10V)	＜35mΩ(Typ:26mΩ)
R_{DSON}-typ(@V_{GS}=4.5V)	＜40mΩ(Typ:30mΩ)
R_{DSON}-typ(@V_{GS}=2.5V)	＜52mΩ(Typ:33mΩ)





SOT-89

Marking Code	
YFW3400SI	RO

FEATURES

- High dense cell design for extremely low RDS(on).
- Exceptional on-resistance and maximum DC current capability.
- Load/Power Switching.
- Interfacing Switching.

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Characteristics	Symbols	Value	Units
Drain-Source Voltage	V_{DS}	30	V
Gate - Source Voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	5.8	A
Drain Current-Pulsed(note 1)	I_{DM}	30	A
Power Dissipation	P_D	1400	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-50 to +150	°C
Thermal Resistance From Junction to Ambient (note 2)	$R_{\theta JA}$	89	°C/W

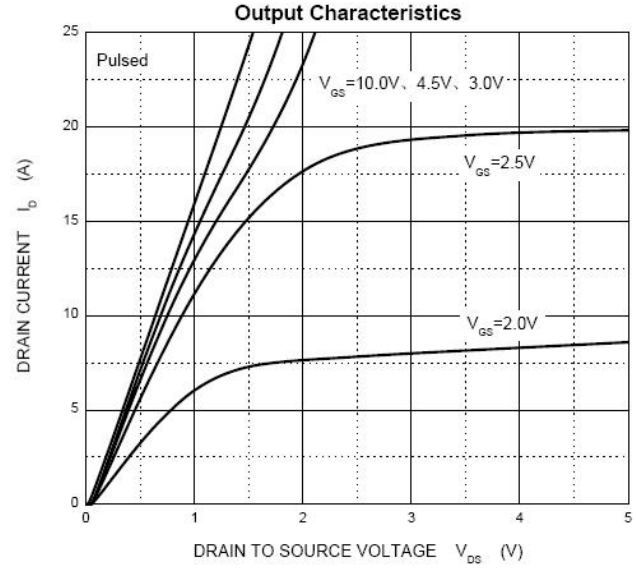
Electrical Characteristics(Ta=25°C unless otherwise noted)

Characteristics	Test Condition	Symbols	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	V_{GS}=0V, I_D=250uA	$V_{(BR)DSS}$	30	-	-	V
Zero Gate Voltage Drain Current	V_{DS}=30V , V_{GS}=0V	I_{DSS}	-	-	1.0	μA
Gate to Body Leakage Current	V_{GS}=±12V, V_{DS}=0V	I_{GSS}	-	-	±100	nA
Drain-Source On-Resistance (note 3)	V_{GS}=10V, I_D=5.8A	$R_{DS(ON)}$	-	26	35	mΩ
	V_{GS}=4.5V, I_D=5A		-	30	40	
	V_{GS}=2.5V, I_D=4A		-	33	52	
Forward trans conductance	V_{DS}=5V, I_D=5A	gfs	8	-	-	S
Gate -Threshold Voltage	V_{DS}=V_{GS}, I_D=250uA	$V_{GS(th)}$	0.7	-	1.4	V
Input Capacitance	V_{DS}=15V V_{GS}=0V f=1.0MHz	C_{iss}	-	-	1050	pF
Output Capacitance		C_{oss}	-	99	-	
Reverse Transfer Capacitance		C_{rss}	-	77	-	
Gate resistance	V_{DS}=0V, V_{GS}=0V,f=1MHz	Rg			3.6	Ω
Turn-on delay time	V_{GS}=10V RL=2.7Ω V_{DS}=15V R_{GEN}=3Ω	$t_{d(on)}$	-	-	5	ns
Turn-on Rise Time		T_r	-	-	7	
Turn-Off Delay Time		$t_{d(OFF)}$	-	-	40	
Turn-Off Fall Time		t_f	-	-	6	
Diode forward voltage	I_S=1A, V_{GS}=0V	V_{SD}	-	-	1.0	V

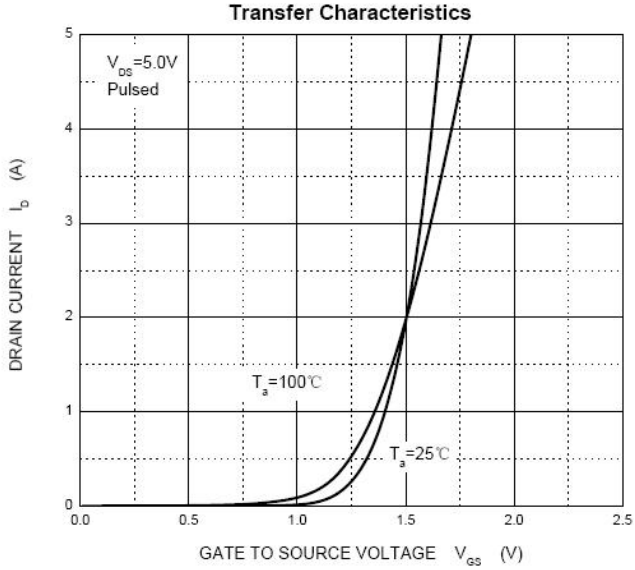
Notes:
1. Repetitive Rating: Pulse width limited by maximum junction temperature.
2. Surface Mounted on FR4 Board, t<5 sec.
3. Pulse Test: Pulse Width ≤300us, Duty Cycle≤2%.
4. Guaranteed by design, not subject to production testing.

Typical characteristics

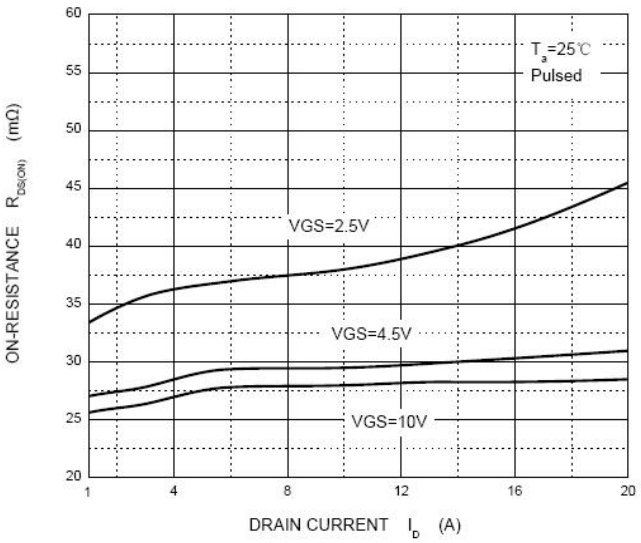
Output Characteristics



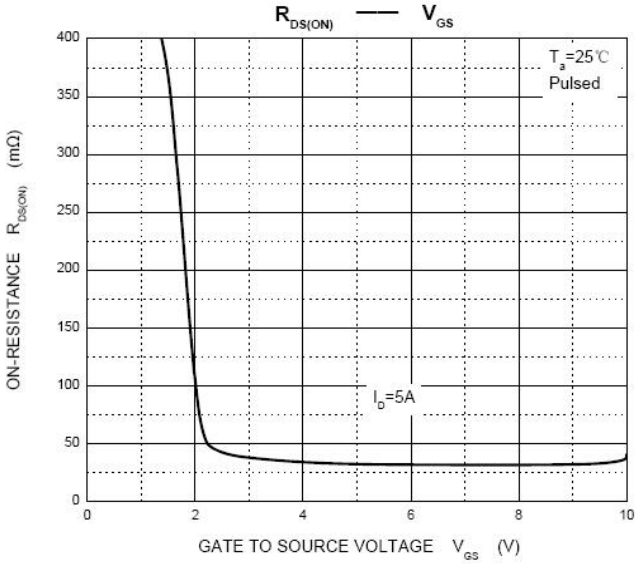
Transfer Characteristics



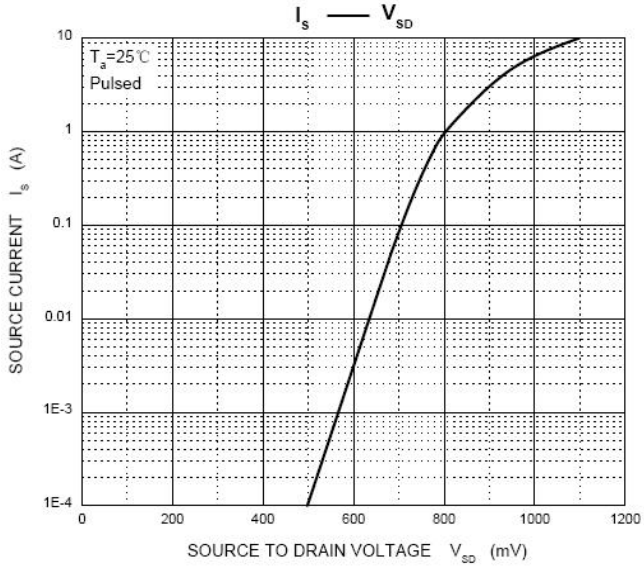
$R_{DS(ON)}$ —— I_D



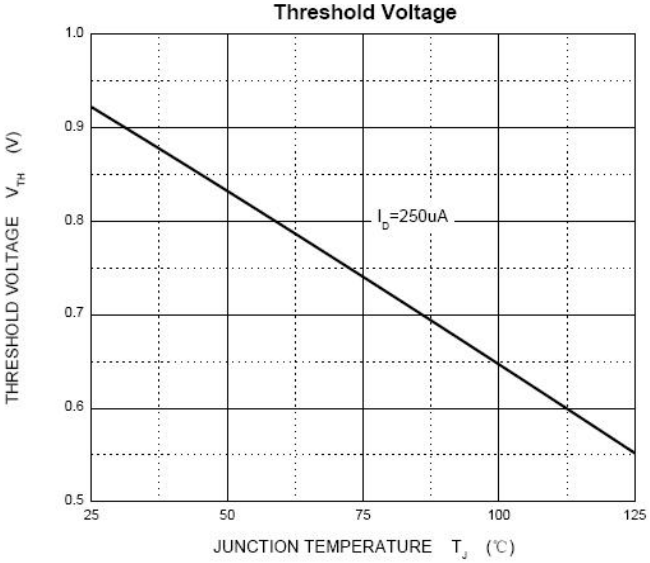
$R_{DS(ON)}$ —— V_{GS}



I_S —— V_{SD}



Threshold Voltage

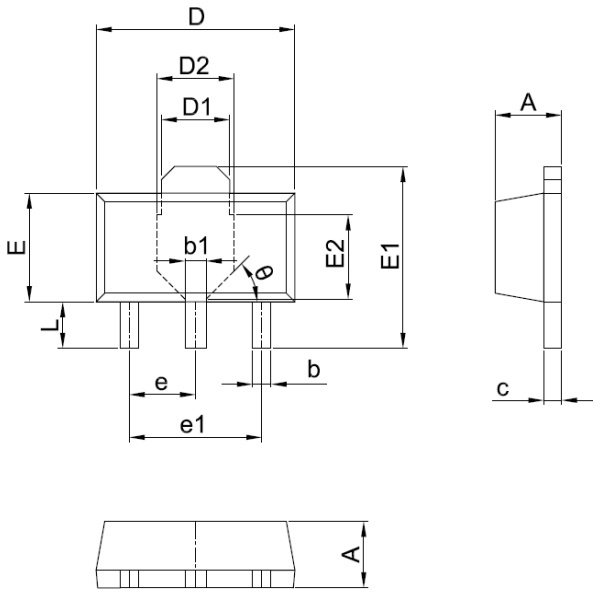


Ordering information

Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel,7"reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

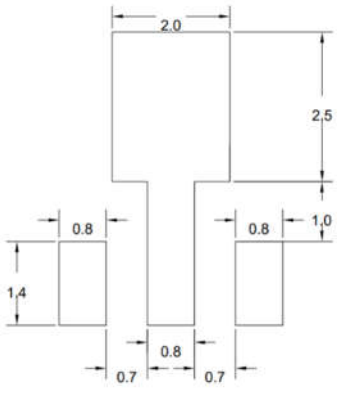
Package Dimensions

SOT-89



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

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