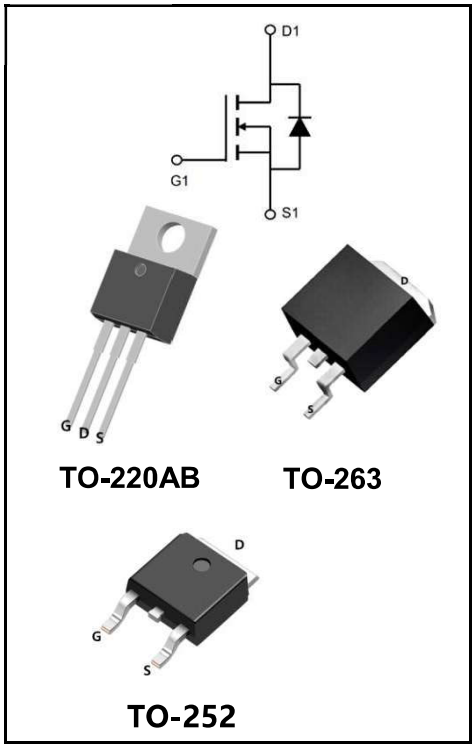
60V N- CHANNEL ENHANCEMENT MODE MOSFET

MAIN CHARACTERISTICS

I_D		80A
V_{DSS}		60V
R_{DSON}-typ (@V_{GS}=10V)	TO-252	<7.9 mΩ**(Type:5.8 mΩ)**
	TO-263	<7.9 mΩ**(Type:6.0 mΩ)**
	TO-220AB	<7.9 mΩ**(Type:6.2 mΩ)**



TO-220AB TO-263

TO-252

Features

- Adopt advanced trench technology to provide excellent RDS(ON), low gate charge and operation with gatevoltages
- as low as 4.5V. This device is suitable for use as a Battery protection or in other Switching application.

Application

- Battery protection
- Load switch
- Uninterruptible power supply

Mechanical Data

- Case: Molded plastic
- Mounting Position: Any
- Molded Plastic: UL Flammability Classification Rating 94V-0
- Solder bath temperature275℃maximum,10s per JESD22-106

Product Specification Classification

Part Number	Part Number	Marking	Pack
YFW80N06AT	TO-220AB	YFW 80N06AT XXXXX	1000PCS/Box
YFW80N06AS-G	TO-263	YFW 80N06AS XXXXX	1000PCS/Box
YFW80N06AS	TO-263	YFW 80N06AS XXXXX	800PCS/Reel
YFW80N06AD	TO-252	YFW 80N06AD XXXXX	2500PCS/Reel

Maximum Ratings at Tc=25°C unless otherwise specified

Characteristics	Symbols	Value	Units
		252/263/220AB	
Drain-Source Voltage	VDS	60	V
Gate-Source Voltage	VGS	±20	V
Continue Drain Current	ID	80	A
Pulsed Drain Current (Note1)	IDM	320	A
Power Dissipation	PD	110	W
Single Pulse Avalanche Energy (Note1)	EAS	140	mJ
Operating Temperature Range	TJ	150	°C
Storage Temperature Range	TSTG	-55 to +175	°C
Thermal Resistance, Junction to Case	RθJC	2.1	°C/W
Thermal Resistance, Junction to Ambient	RθJA	62	°C/W

Note1:Pulse test: 300 μs pulse width, 2 % duty cycle

Electrical Characteristics at Tc=25°C unless otherwise specified

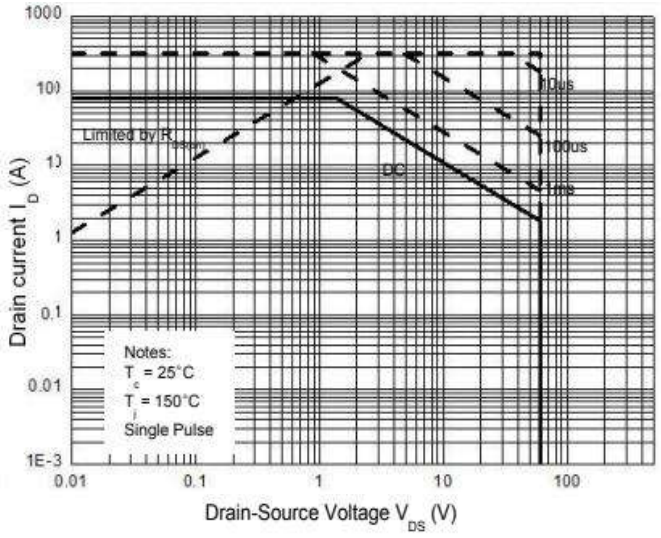
Characteristics	Test Condition		Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{GS} = 0 V,I_D = 250 μA		BV_{DSS}	60	-	-	V
Drain-Source Leakage Current	V_{DS} = 60V, V_{GS} = 0 V		I_{DSS}	-	-	1	UA
Gate Leakage Current	V_{GS} = ± 20 V, VDS = 0 V		I_{GSS}	-	-	±100	nA
Gate-Source Threshold Voltage	V_{DS} = V_{GS} , I_D = 250 μA		$V_{GS(th)}$	2	-	4	V
Drain-Source On-State Resistance	V_{GS} = 10 V, I_D = 30A	TO-252	$R_{DS(on)}$	-	5.8	7.9	mΩ
		TO-263		-	6.0	7.9	
		TO-220AB		-	6.2	7.9	
Forward Transconductance	V_{DS} = 5 V, I_D = 10 A		gfs	10	-	-	S
Input Capacitance	V_{GS} = 15 V, V_{DS} = 0 V, f = 1MHz		C_{iss}	-	3750	-	pF
Output Capacitance			C_{oss}	-	269	-	
Reverse Transfer Capacitance			C_{rss}	-	255	-	
Turn-on Delay Time(Note2)	I_D = 30A, V_{DD} = 30 V, R_G= 2Ω, V_{GS}=10V		t_d(ON)	-	18	-	nS
Rise Time(Note2)			tr	-	170	-	
Turn-Off Delay Time(Note2)			t_d(OFF)	-	464	-	
Fall Time(Note2)			t_f	-	140	-	
Total Gate Charge(Note2)	I_D = 30 A, V_{DS} = 30 V, V_{GS} = 10 V		Q_G	-	12	-	nC
Gate to Source Charge(Note2)			Q_{GS}	-	13	-	
Gate to Drain Charge(Note2)			Q_{GD}	-	68	-	

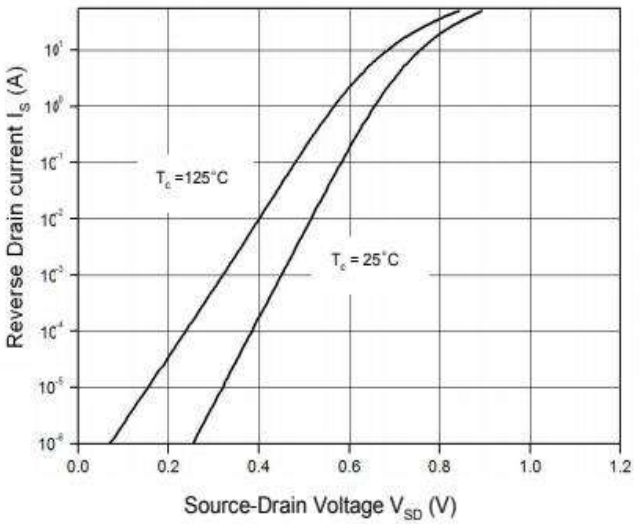
Source-Drain Diode Characteristics at Ta=25°C unless otherwise specified

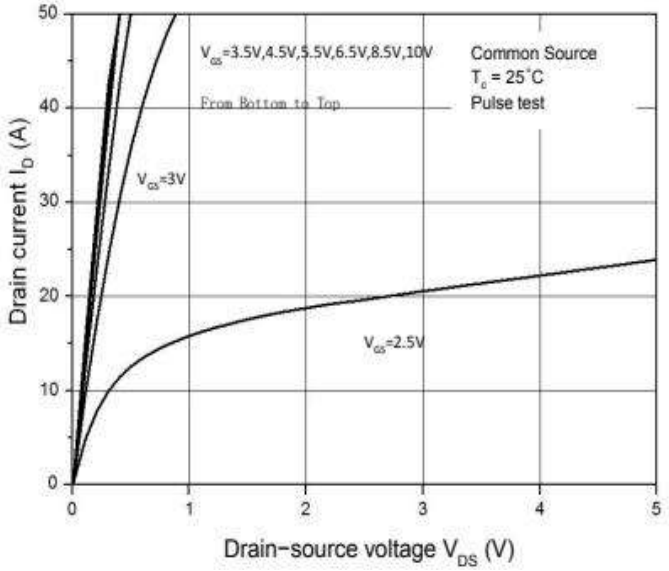
Characteristics	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Maximun Body-Diode Continuous Current		I_S	-	-	80	A
Maximun Body-Diode Pulsed Current(Note2)		I_{SM}	-	-	320	A
Drain-Source Diode Forward Voltage	V_{GS} = 0 V,I_S= 1 A,TJ=25℃	V_{SD}	-	-	1.2	V

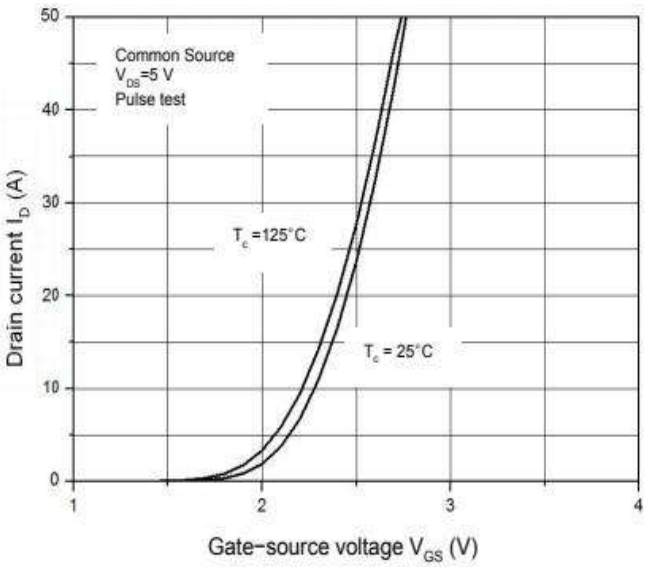
Note2:Pulse test: 300 μs pulse width, 2 % duty cycle

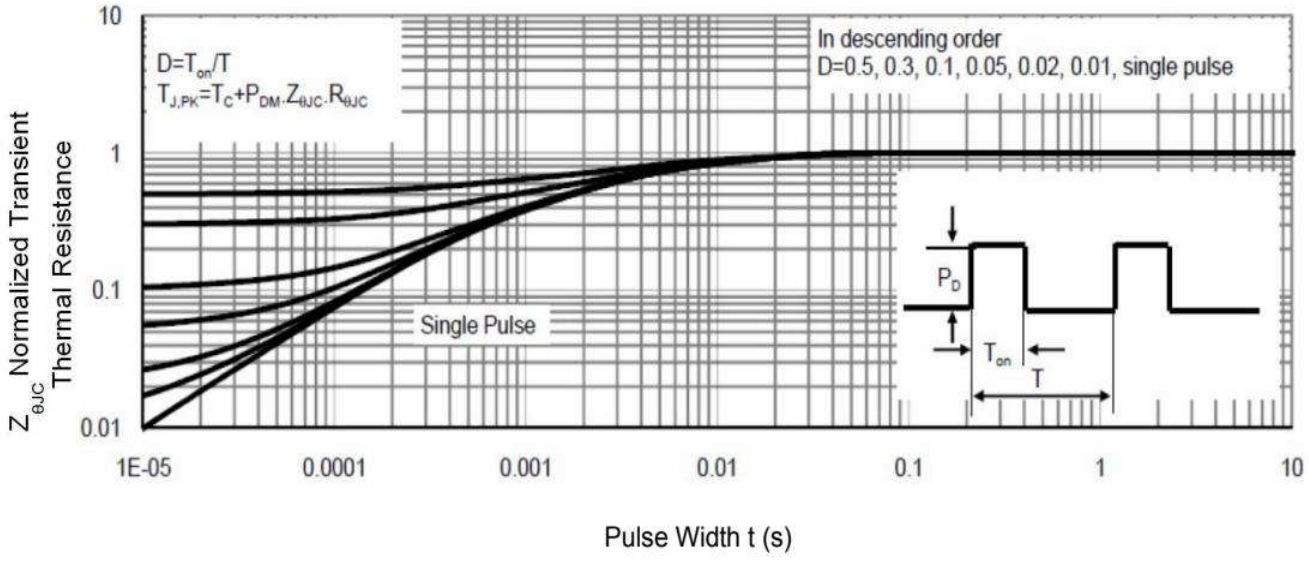
Ratings and Characteristic Curves





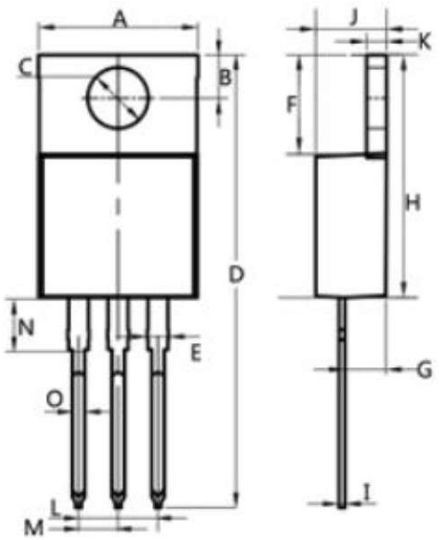






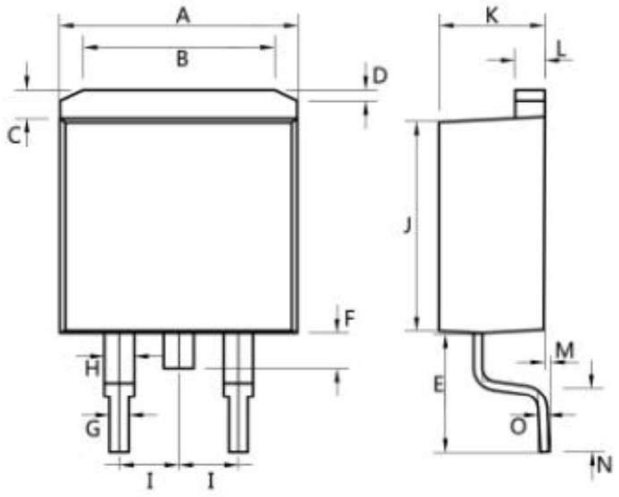
Package Outline Dimensions Millimeters

TO-220AB



Dim.	Min.	Max.
A	10.15	10.35
B	2.65	2.95
C	3.70	3.90
D	28.5	29.5
E	1.30	1.45
F	6.35	6.55
G	2.9	3.3
H	15.0	16.0
I	0.38	0.42
J	4.45	4.55
K	1.25	1.35
L	Typ 5.08	
M	Typ 2.54	
N	3.1	3.3
O	0.76	0.84
All Dimensions in millimeter		

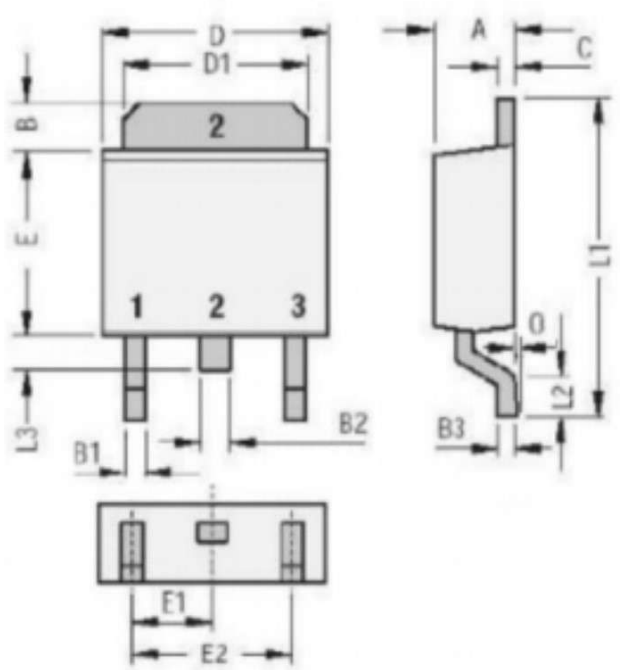
TO-263



Dim.	Min.	Max.
A	10.1	10.2
B	7.4	7.6
C	1.3	1.5
D	0.55	0.75
E	5.0	6.0
F	1.4	1.6
G	0.78	0.86
H	1.2	1.3
I	Typ 2.54	
J	8.4	8.6
K	4.45	4.55
L	1.25	1.35
M	0.02	0.1
N	2.4	2.8
O	0.36	0.40
All Dimensions in millimeter		

Package Outline Dimensions Millimeters

TO-252



Dim.	Min.	Max.
A	2.1	2.5
B	0.95	1.55
C	0.4	0.6
D	6.4	6.7
D1	5.1	5.8
E	5.8	6.4
E1	Typ 2.3	
E2	Typ 4.6	
B1	0.6	0.8
B2	0.75	0.95
O	--	0.15
L1	9.0	11.0
L2	1.3	1.7
L3	0.70	0.95

All Dimensions in millimeter

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for MOSFET ***category:***

Click to view products by YFW Electronics ***manufacturer:***

Other Similar products are found below :

IRFD120 JANTX2N5237 BUK455-60A/B MIC4420CM-TR VN1206L NDP4060 SI4482DY IPS70R2K0CEAKMA1 SQD23N06-31L-GE3 TK16J60W,S1VQ(O 2SK2614(TE16L1,Q) DMN1017UCP3-7 DMN1053UCP4-7 SQJ469EP-T1-GE3 NTE2384 DMC2700UDMQ-7 DMN2080UCB4-7 DMN61D9UWQ-13 US6M2GTR DMN31D5UDJ-7 DMP22D4UFO-7B DMN1006UCA6-7 DMN16M9UCA6-7 STF5N65M6 IRF40H233XTMA1 STU5N65M6 DMN6022SSD-13 DMN13M9UCA6-7 DMTH10H4M6SPS-13 DMN2990UFB-7B IPB80P04P405ATMA2 2N7002W-G MCAC30N06Y-TP MCQ7328-TP BXP7N65D BXP4N65F AOL1454G WMJ80N60C4 BXP2N20L BXP2N65D BXT1150N10J BXT1700P06M TSM60NB380CP ROG RQ7L055BGTCR DMNH15H110SK3-13 SLF10N65ABV2 BSO203SP BSO211P IPA60R230P6 IPA60R460CE