



N-Channel Enhancement Mode Field Effect Transistor

Product Summary

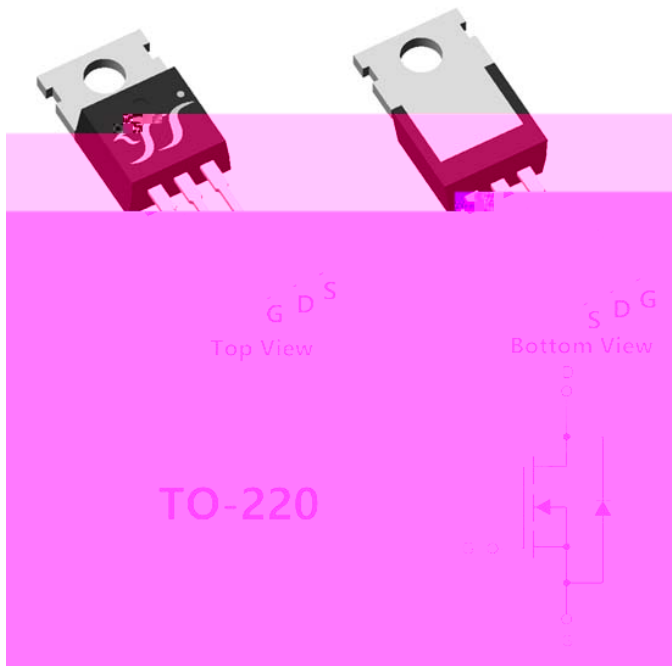
• V_{DS}	120V
• I_D	90A
• $R_{DS(ON)}$ (at $V_{GS}=10V$)	9m Ω
• $R_{DS(ON)}$ (at $V_{GS}=6V$)	12m Ω
• 100% EAS Tested	
• 100% VDS Tested	

General Description

- Split gate trench MOSFET technology
- Excellent package for heat dissipation
- High density cell design for low $R_{DS(ON)}$
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Power switching application
- Uninterruptible power supply
- DC-DC convertor

■ Absolute Maximum Ratings ($T_A=25$ unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	120	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25$	I_D	12	A
	$T_A=100$		7.5	
	$T_C=25$		90	
	$T_C=100$		56	
Pulsed Drain Current ^A		I_{DM}	360	A
Avalanche energy ^B		EAS	462.25	mJ
Total Power Dissipation ^C	$T_A=25$	P_D	3.5	W
	$T_A=100$		1.4	
	$T_C=25$		147	
	$T_C=100$		58	
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150	

■ Thermal resistance

Parameter		Symbol	Typ	Max	Units
Thermal Resistance Junction-to-Ambient ^D	Steady-State	$R_{\theta JA}$	28	35	/W
Thermal Resistance Junction-to-Case	Steady-State	$R_{\theta JC}$	0.7	0.85	

				QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YJP90G12H	B1	YJP90G12H	50	/	5000	Tube



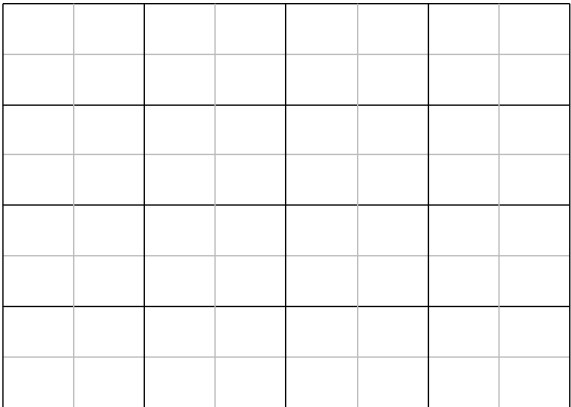
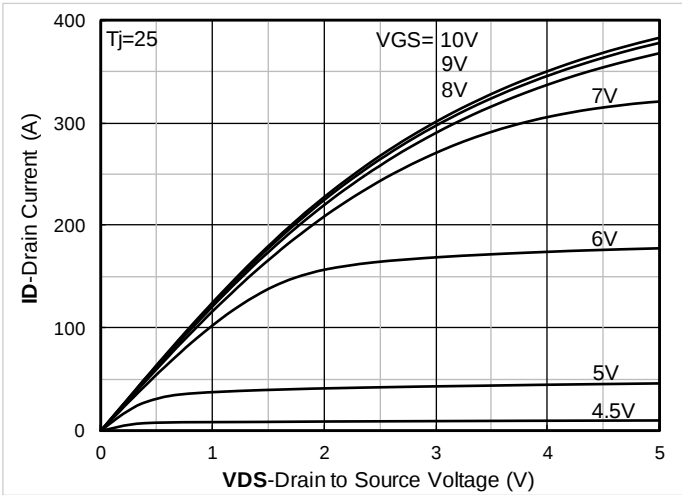
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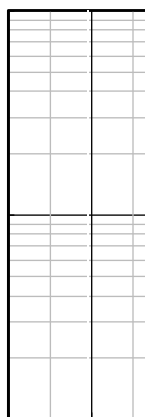
■ Electrical Characteristics ($T_J=25$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	120	-	-	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=120V, V_{GS}=0V$	-	-	1	μA
		$V_{DS}=120V, V_{GS}=0V, T_J=150$	-	-	100	



■Typical Electrical and Thermal Characteristics Diagrams



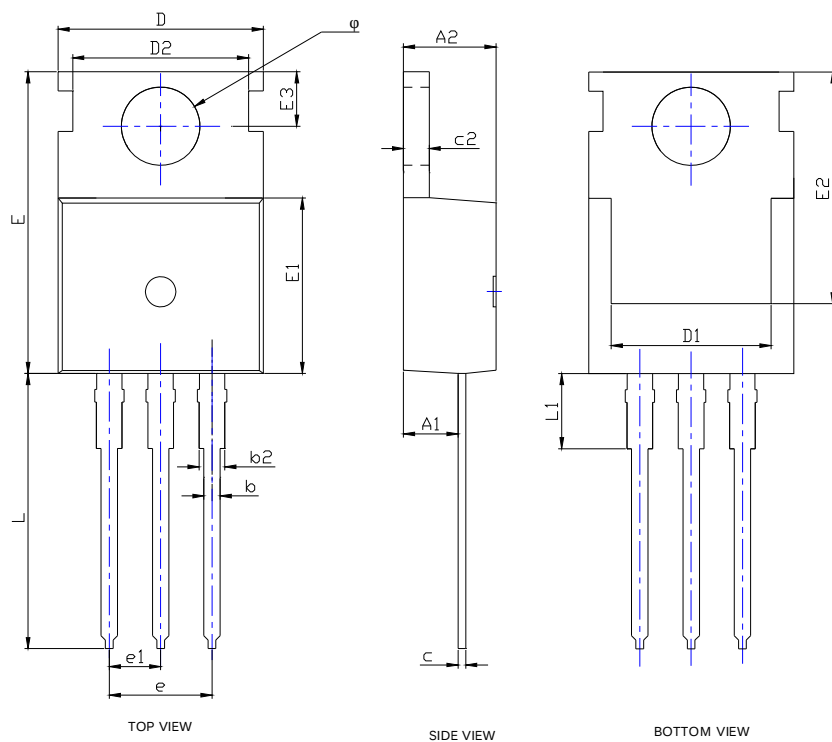


YJP90G12H



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■ TO-220AB-C Package information



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A1	0.091	0.098	2.300	2.500
A2	0.173	0.181	4.400	4.600
b	0.028	0.035	0.700	0.900
b2	0.049	0.056	1.250	1.420
c	0.018	0.022	0.450	0.550
c2	0.049	0.053	1.250	1.350
D	0.382	0.402	9.700	10.200
D1	0.299	0.		

NOTE:
1. PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
2. TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.



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