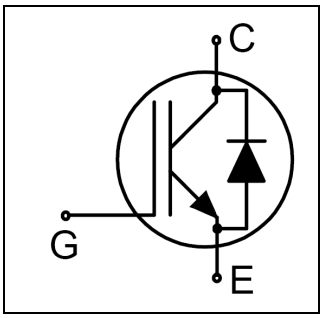
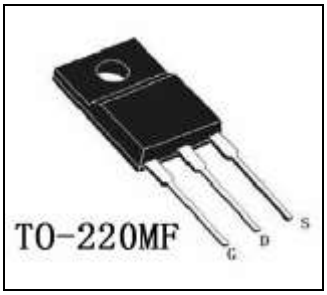
JT015N065FED

主要参数 MAIN CHARACTERISTICS

I_C	15 A
V_{CES}	650V
$V_{cesat-typ}$ （@V_{ge}=15V）	1.6V

封装 Package





用途

- 逆变器
- UPS 电源

APPLICATIONS

- General purpose inverters
- UPS

产品特性

- 低栅极电荷
- Trench FS 技术,
- 通态压降, V_{CE}(sat), typ = 1.6V @ I_C =15A and TC = 25°C
- RoHS 产品

FEATURES

- Low gate charge
- Trench FS Technology,
- saturation voltage: V_{CE}(sat), typ = 1.6V @ I_C = 15A and TC = 25°C
- RoHS product

订货型号 Order codes	印记 Marking	封装 Package	无卤素 Halogen Free	包装 Packaging	器件重量 Device Weight
JT015N065FED-O-F-N-B	JT015N065FED	TO-220MF	否 NO	条管 Tube	2.20 g(typ)

绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)

项 目 Parameter	符 号 Symbol	数 值 Value	单位 Unit
		JT015N065FED	
最高集电极－发射极直流电压 Collector-Emmiter Voltage	V_{ces}	650	V
*连续集电极电流 Collector Current-continuous	I_C	30 (T=25℃)	A
		15(T=100℃)	A
最大脉冲集电极极电流（注 1） Collector Current – pulse （note 1）	I_{CM}	45	A
最高栅极发射极电压 Gate-Emmiter Voltage	V_{GES}	±20	V
Turn-off safe area	-	60	A
耗散功率 Power Dissipation	P_D T_C=25℃	31	W
最高结温及存储温度 Operating and Storage Temperature Range	T_J，T_{STG}	-55～+150	℃
引线最高焊接温度 Maximum Lead Temperature for Soldering Purposes	T_L	300	℃

*连续集电极电流由最高结温限制

*Collector current limited by maximum junction temperature

电特性 ELECTRICAL CHARACTERISTICS

项　　目 Parameter	符　号 Symbol	测试条件 Tests conditions	最小 Min	典型 Typ	最大 Max	单　位 Units
关态特性 Off –Characteristics						
集电极－发射极击穿电压 Collector-Emmiter Voltage	BV_{CES}	I_C=500μA, V_{GE}=0V	650	-	-	V
击穿电压温度特性 Breakdown Voltage Temperature Coefficient	$\Delta BV_{CES}/\Delta T_J$	I_C=1mA, referenced to 25℃	-	0.5	-	V/℃
零栅压下集电极漏电流 Zero Gate Voltage Collector Current	I_{CES}	V_{CE}=650V, V_{GE}=0V, T_C=25℃	-	-	10	μA
正向栅极体漏电流 Gate-body leakage current, forward	I_{GESF}	V_{CE}=0V, V_{GE} =20V	-	-	200	nA
反向栅极体漏电流 Gate-body leakage current, reverse	I_{GESR}	V_{CE}=0V, V_{GE} =-20V	-	-	-200	nA
通态特性 On-Characteristics						
阈值电压 Gate Threshold Voltage	$V_{GE(th)}$	V_{CE} = V_{GE} , I_C=250μA	4.0	-	6.5	V
饱和压降 Collector-Emmiter saturation Voltage	V_{CESAT}	V_{GE}=15V I_C=15A Tc=25℃	-	1.6	2.0	V
动态特性 Dynamic Characteristics						
输入电容 Input capacitance	C_{ies}	V_{CE}=25V, V_{GE}=0V, f=1.0MHz	-	880	-	pF
输出电容 Output capacitance	C_{oes}		-	TBD	-	pF
反向传输电容 Reverse transfer capacitance	C_{res}		-	TBD	-	pF
栅极电荷总量 Total Gate Charge	Qg	V_{CC}=400V,I_c=15A,R_G=10Ω V_{GE}=15 V T_C=25℃	-	TBD	-	nC
栅极-反射极 Gate to emitter charge	Qge		-	TBD	-	
栅极-集电极 Gate to collector charge	Qgc		-	TBD	-	
栅极电阻-Gate resistance	Rg	f=1 MHz, open collector	-	1.75	-	Ω
短路电流-short current	Isc	V_{GE}=15V V_{CE}=360V	-	75	-	A

电特性 ELECTRICAL CHARACTERISTICS

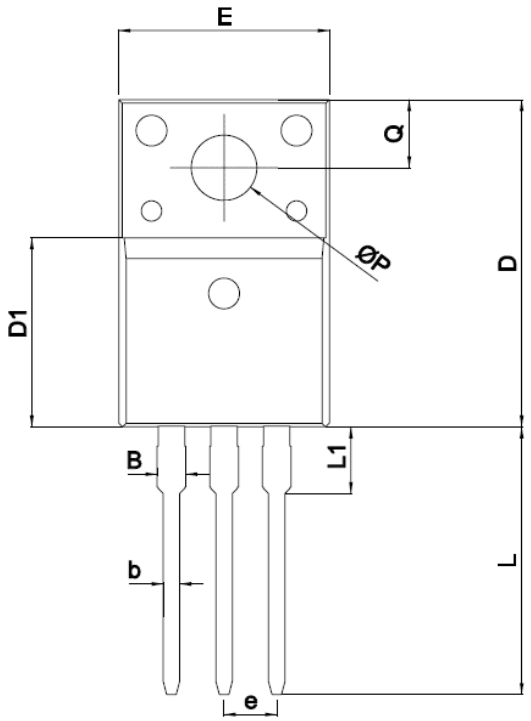
开关特性 Switching Characteristics						
项　　目 Parameter	符　号 Symbol	测试条件 Tests conditions	最小 Min	典型 Typ	最大 Max	单　位 Units
开启延迟时间 Turn-On delay time	$t_d(on)$	V_{CC}=400V,I_c=15A,R_G=60Ω	-	TBD	-	ns
上升时间 Turn-On rise time	t_r	V_{GE}=15 V	-	TBD	-	ns
关断延迟时间 Turn-Off delay time	$t_d(off)$	T_C=25℃	-	TBD	-	ns
下降时间 Turn-Off Fall time	t_f		-	TBD	-	ns
开通损耗 Turn-On energy	Eon		-	TBD	-	μJ
关断损耗 Turn-off energy	Eoff		-	TBD	-	μJ
总开关损耗 Total switching energy	Etot		-	TBD	-	μJ
反并联二极管特性及最大额定值 **Anti-Parallel Diode Characteristics and Maximum Ratings**						
正向压降 Drain-Source Diode Forward Voltage	V_F	V_{GE}=0V,　　I_S=15A	-	1.4	2.2	V
反向恢复时间 Diode Reverse recovery time	t_{rr}	V_{GE}=0V, V_R=400V I_F=15A dI_F/dt=200A/μs　(note 4)	-	TBD	-	ns
反向恢复电荷 Diode Reverse recovery charge	Qrr		-	TBD	-	nC
反向恢复电流 Diode Reverse recovery Current	I_{RRM}		-	TBD	-	A

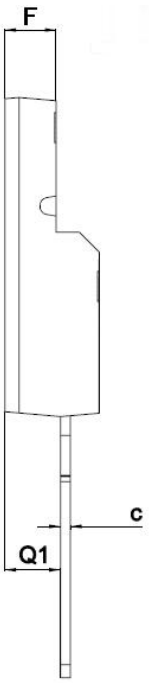
项　　目 Parameter	符　号 Symbol	典型 Typ		单　位 Unit
		JT05N065FED		
结到管壳的热阻 Thermal Resistance, Junction to Case	$R_{th(j-c)}$	4.8		℃/W
结到环境的热阻 Thermal Resistance, Junction to Ambient	$R_{th(j-A)}$	62.5		℃/W

外形尺寸 **PACKAGE MECHANICAL DATA**

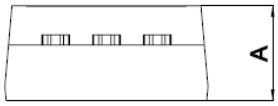
TO-220MF

单位 Unit：mm





SYMBOL	mm	
	MIN	MAX
A	4.5	4.9
B		1.47
b	0.7	0.9
c	0.45	0.60
D	15.67	16.07
D1	9.04	9.20
e	2.54TYPE	
E	9.96	10.36
F	2.34	2.74
L	12.58	13.38
L1	3.13	3.33
Q	3.2	3.4
Q1	2.56	2.96
ΦP	3.08	3.28



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