

JMPC20N65BJ

Electrical Characteristics (T_J = 25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
Off Characteristics						
V _{(BR)DSS}	Drain-Source Breakdown Voltage	I _D = 250μA, V _{GS} = 0V	650	-	-	V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 650V, V _{GS} = 0V	-	-	1.0	μA
I _{GSS}	Gate-Body Leakage Current	V _{DS} = 0V, V _{GS} = ±30V	-	-	±100	nA
On Characteristics						
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} , I _D = 250μA	2	3	4	V
R _{DS(ON)}			-	0.4	0.47	Ω
C _{iss}			-	3234	-	pF
C _{oss}			-	266	-	pF
C _{rss}			-	34	-	pF
Q _g	Total Gate Charge		-	73	-	nC
Q _{gs}	Gate Source Charge		-	17	-	nC
Q _{gd}	Gate Drain("Miller") Charge		-	29	-	nC
t _{d(on)}			-	45	-	ns
t _r			-	64	-	ns
t _{d(off)}			-	218	-	ns
t _f			-	84	-	ns
I _S			-	-	20	A
I _{SM}			-	-	80	A
V _{SD}			-	-	1.2	V
t _{rr}			-	494	-	ns
Q _{rr}			-	7.9	-	μC

- Notes:
1. Repetitive Rating: Pulse Width Limited by Maximum Junction Temperature.
 2. E_{AS} condition: Starting T_J=25C, V_{DD}=50V, V_G=10V, R_G=25ohm, L=10mH, I_{AS}=14A
 3. R_{JA} is measured with the device mounted on a minimum recommended pad of 2oz copper FR4 PCB
 4. Pulse Test: Pulse Width 300μs, Duty Cycle 0.5%.

Typical Performance Characteristics

Figure 1: Output Characteristics

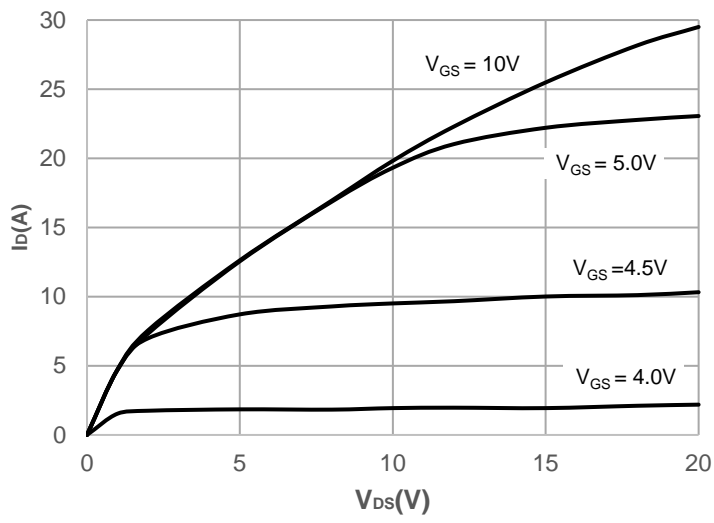
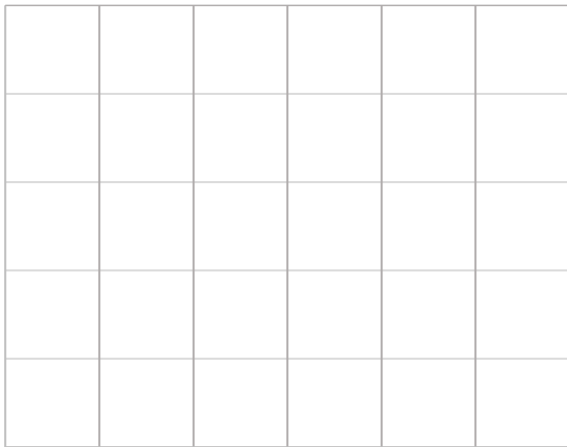
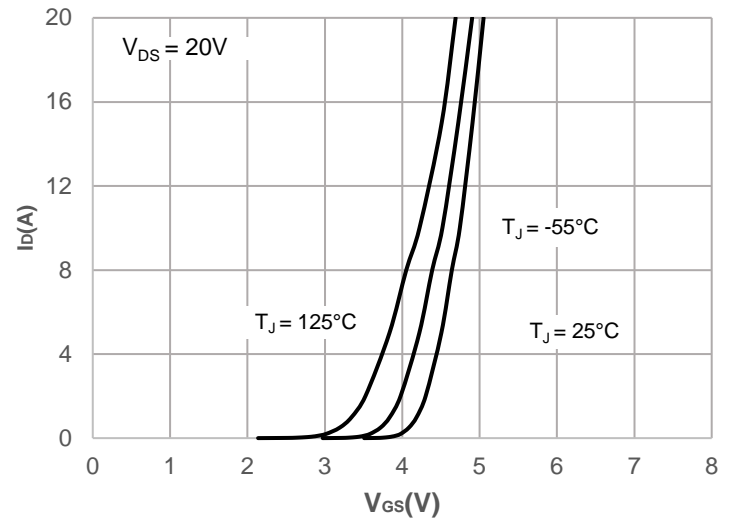


Figure 2: Typical Transfer Characteristics



Typical Performance Characteristics

Figure 7: Normalized Breakdown voltage vs. Junction Temperature

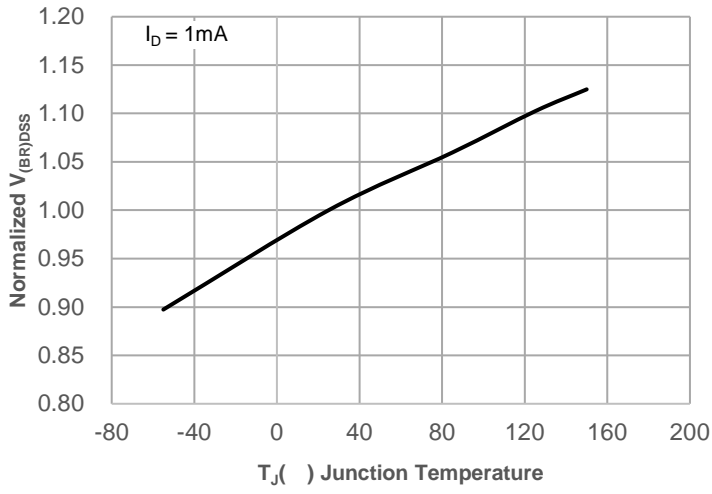


Figure 8: Normalized on Resistance vs. Junction Temperature

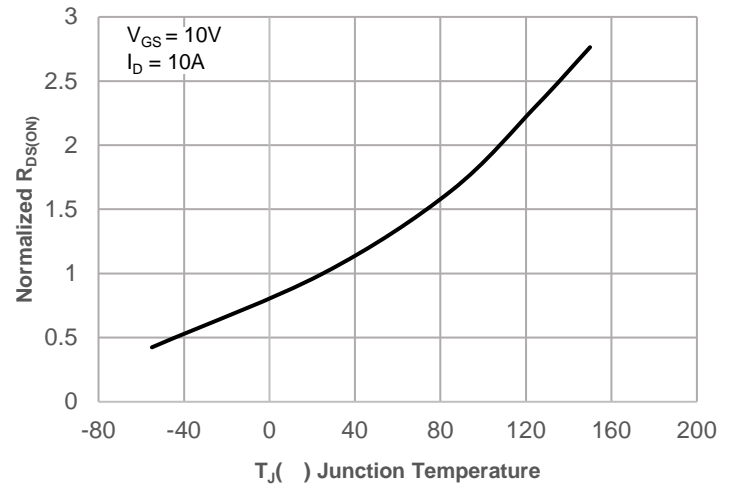
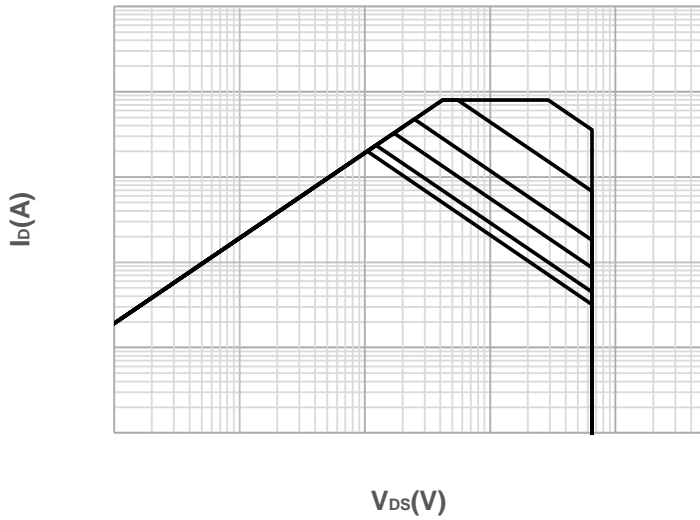
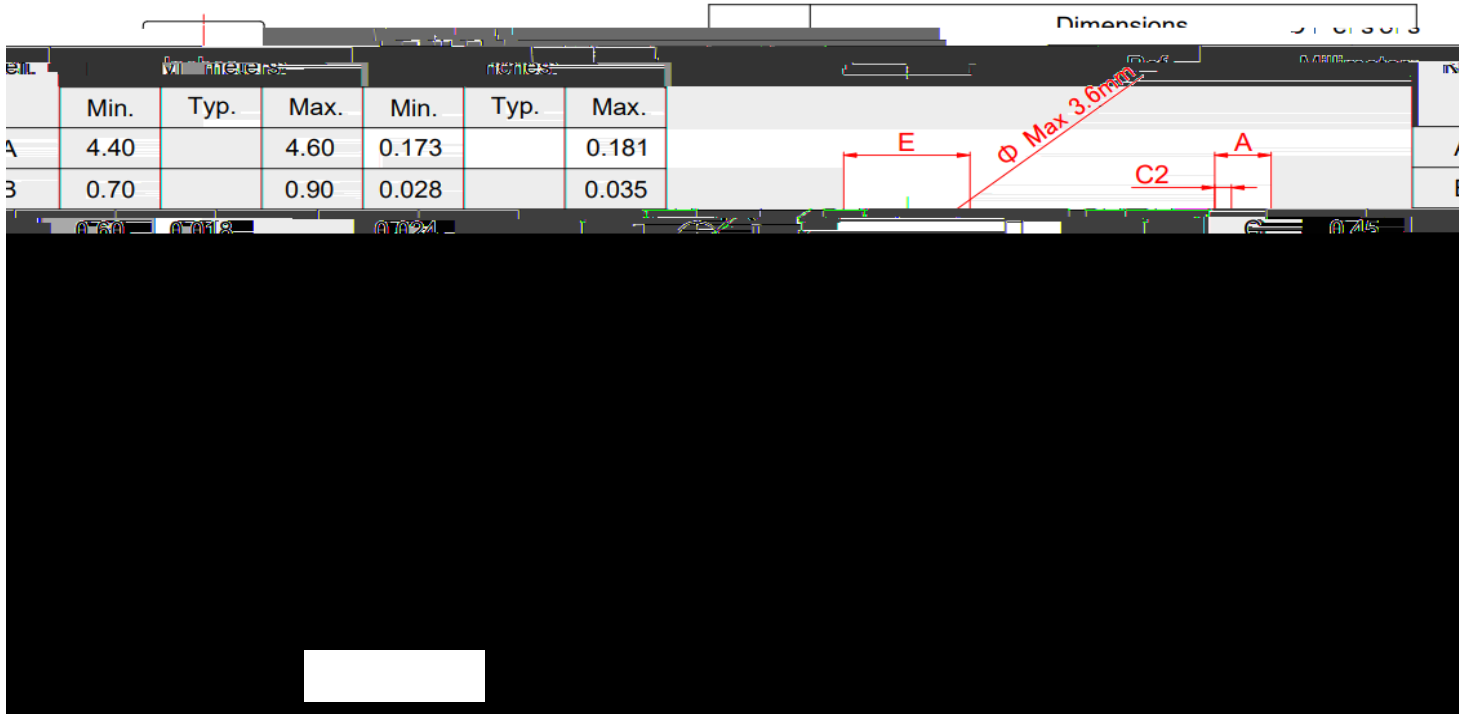


Figure 9: Maximum Safe Operating Area



Package Mechanical Data(TO-220C-3L)



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