



# JMPC20N65BJ

## Electrical Characteristics (T<sub>J</sub> = 25°C unless otherwise specified)

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

- Notes:
1. Repetitive Rating: Pulse Width Limited by Maximum Junction Temperature.
  2. E<sub>AS</sub> condition: Starting T<sub>J</sub>=25C, V<sub>DD</sub>=50V, V<sub>G</sub>=10V, R<sub>G</sub>=25ohm, L=10mH, I<sub>AS</sub>=14A
  3. R<sub>JA</sub> 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

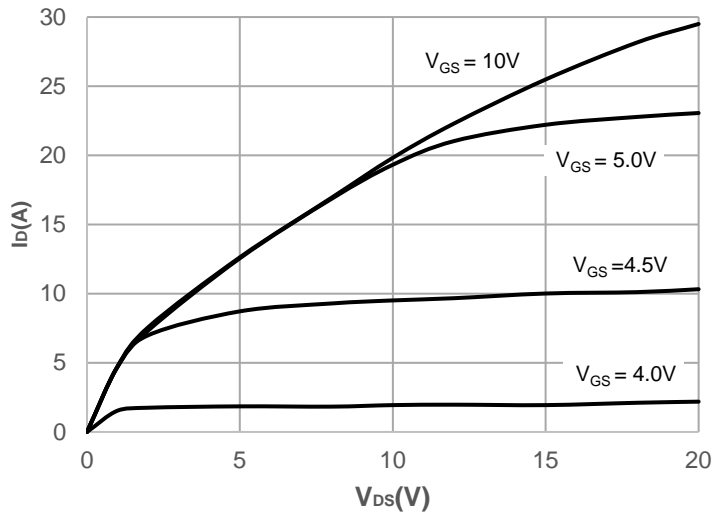
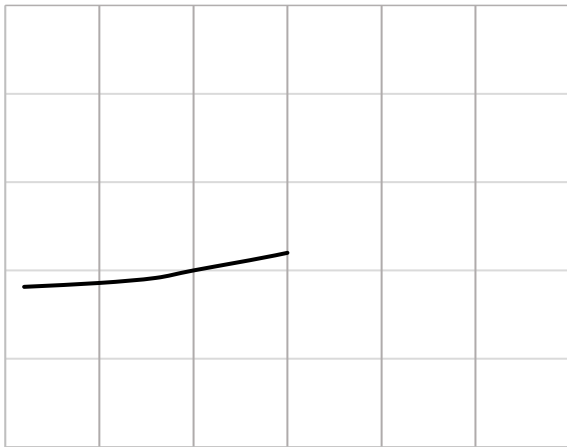
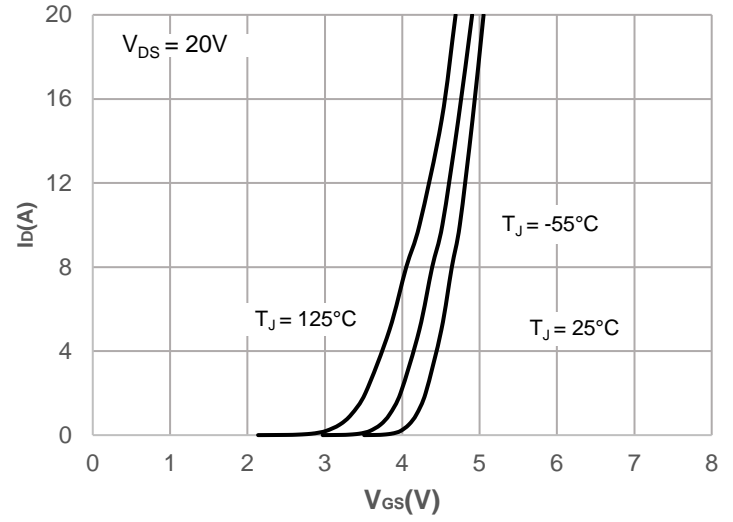


Figure 2: Typical Transfer Characteristics



## Typical Performance Characteristics

Figure 7: Normalized Breakdown voltage vs. Junction Temperature

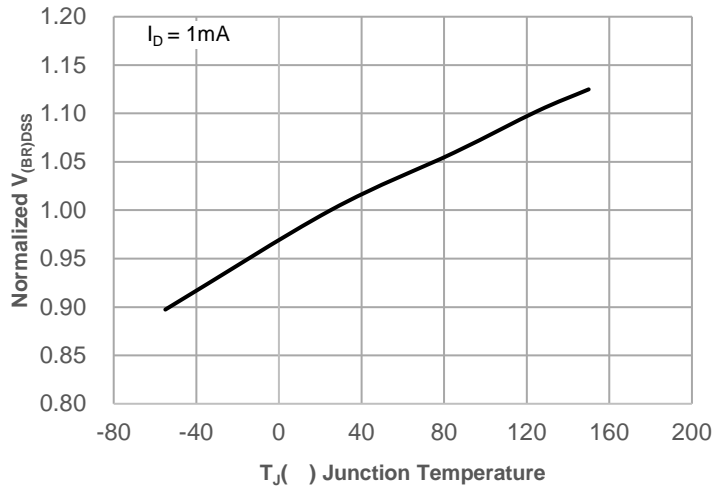


Figure 8: Normalized on Resistance vs. Junction Temperature

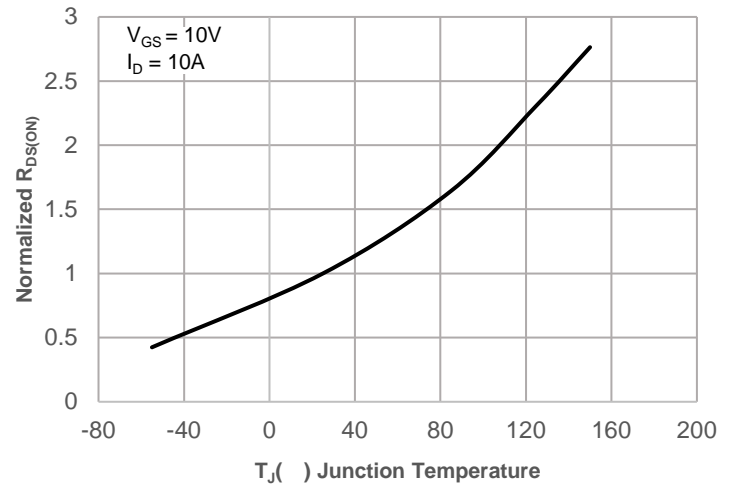
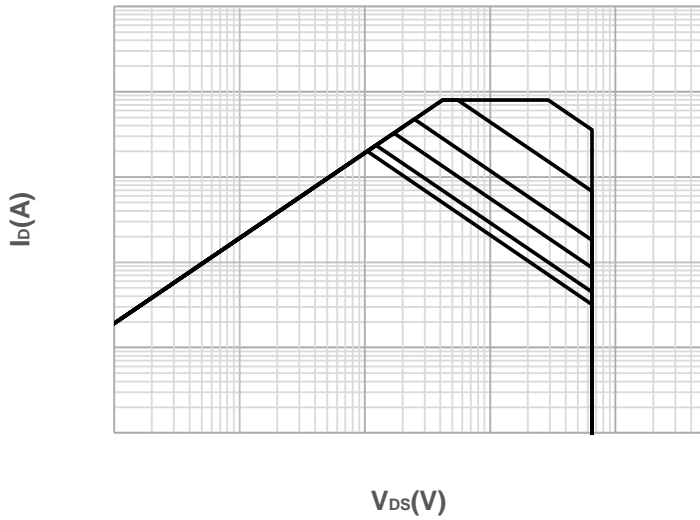


Figure 9: Maximum Safe Operating Area





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



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