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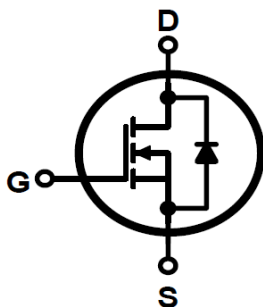
KT2N80

N-Channel Power MOSFET

FEATURES

Low Intrinsic Capacitances
 Excellent Switching Characteristics
 Extended Safe Operating Area
 Unrivalled Gate Charge : $Q_g=12nC$ (Typ.)
 $BV_{DSS}=800V, I_D=2A$
 $R_{DS(on)} : 6.3\Omega$ (Max) @ $V_G=10V$
 100% Avalanche Tested

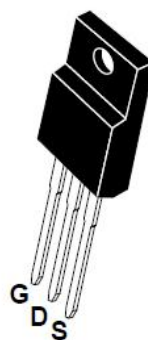
Schematic Diagram (N-Channel)



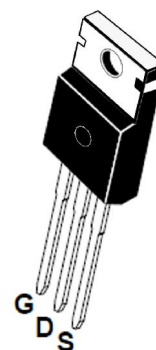
PRODUCT SUMMARY

V_{DSS}	800	V
I_D	2.0	A
$P_D(T_C=25^\circ C)$	35	W
$R_{DS(ON)}$	6.3	Ω

TO-220F



TO-220



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

$T_C = 25^\circ C$ unless otherwise specified

Symbol	Parameter	Rating	Units
V_{DSS}	Drain-to-Source Voltage	800	V
I_D	Continuous Drain Current $T_J = 25^\circ C$	2.0	A
	Continuous Drain Current $T_J = 100^\circ C$	1.25	A
$V_{GS(TH)}$	Threshold Voltage	± 30	V
E_{AS}	Single Pulse Avalanche Energy(note1)	180	mJ
I_{AR}	Avalanche Current(note2)	2.0	A
P_D	Power Dissipation	35	W
T_J, T_{stg}	Junction Temperature(Max) and Storage Temperature	150, - 55 to 150	$^\circ C$
T_L	Maximum lead temperature for soldering purpose, 1/8" from case for 5 seconds	300	$^\circ C$

Notes : 1, $L=59mH, I_{AS}=2A, V_{DD}=50V, R_G=25\Omega$, Starting $T_J=25^\circ C$

2, Repetitive Rating : Pulse width limited by maximum junction temperature

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RATING AND CHARACTERISTIC CURVES

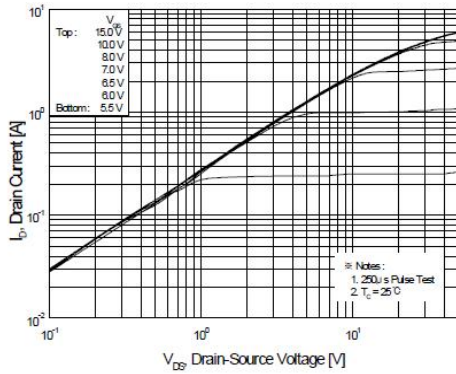


Figure 1. On-Region Characteristics

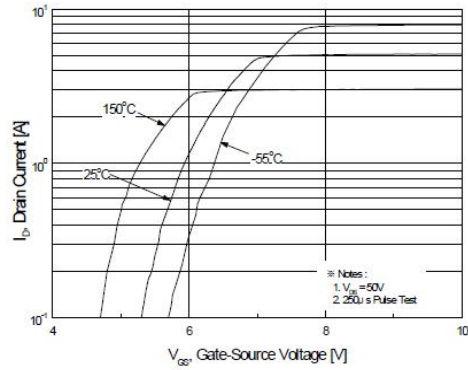


Figure 2. Transfer Characteristics

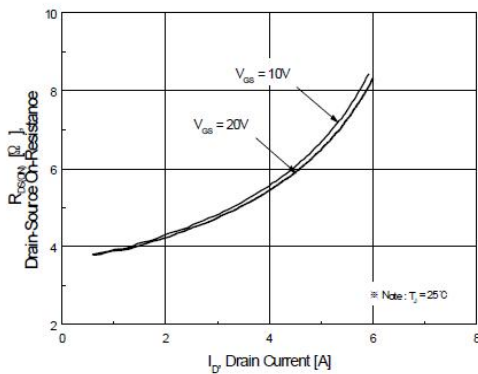


Figure 3. On-Resistance Variation vs Drain Current and Gate Voltage

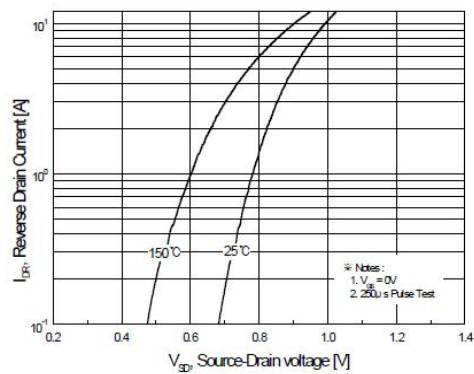


Figure 4. Body Diode Forward Voltage Variation with Source Current and Temperature

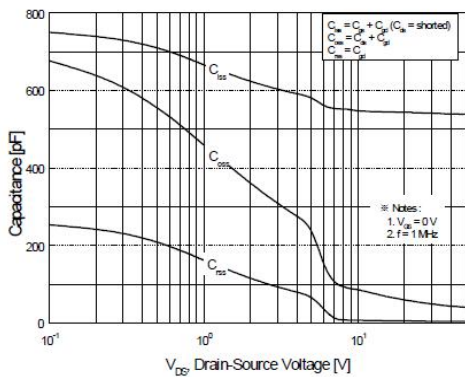


Figure 5. Capacitance Characteristics

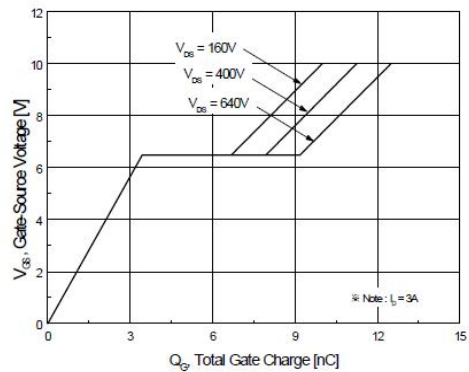


Figure 6. Gate Charge Characteristics

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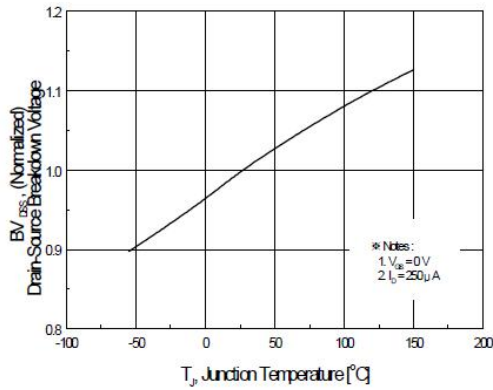


Figure 7. Breakdown Voltage Variation vs Temperature

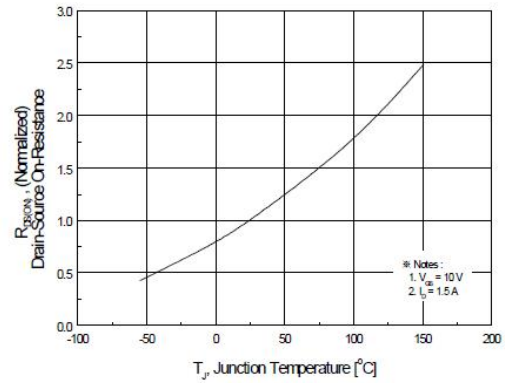


Figure 8. On-Resistance Variation vs Temperature

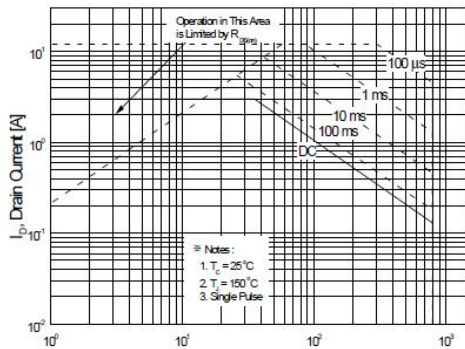


Figure 9-1. Maximum Safe Operating Area

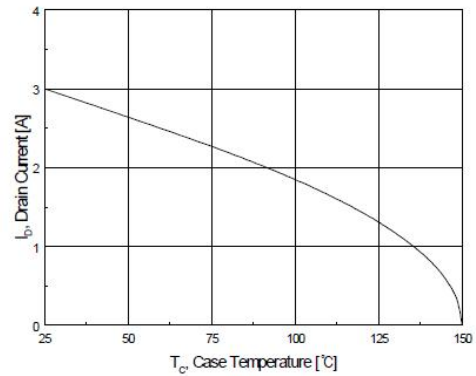


Figure 10. Maximum Drain Current vs Case Temperature

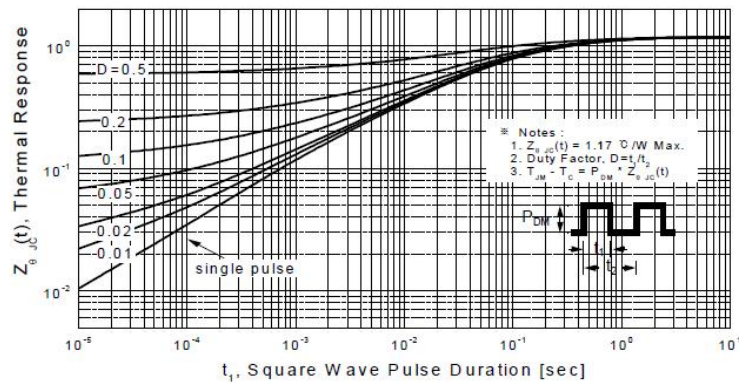


Figure 11-1. Transient Thermal Response Curve

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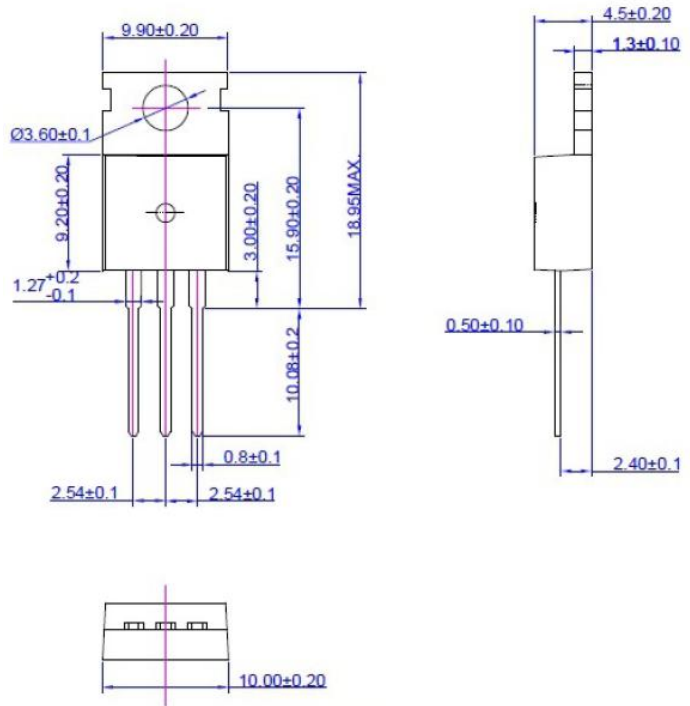
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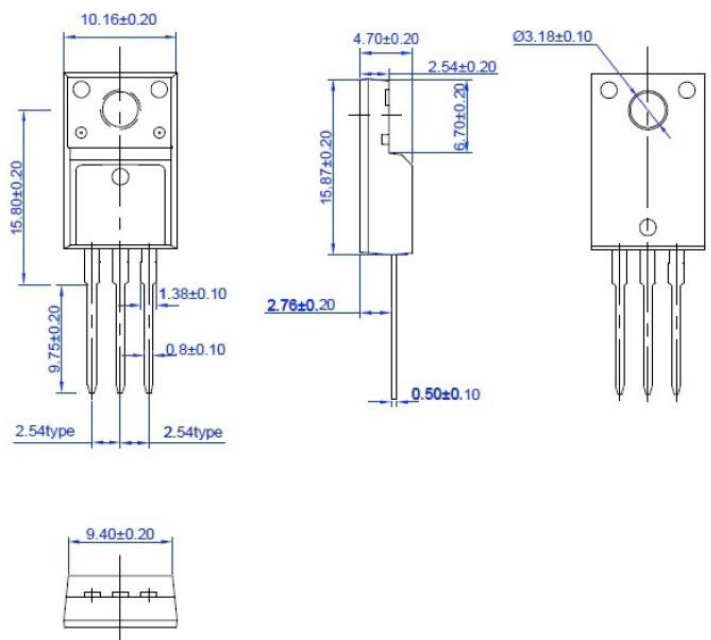
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Package Dimensions

TO-220



TO-220F



Notes: Specifications are subject to change without notice.

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