

Electrical Characteristics : $T_C=25^\circ\text{C}$, unless otherwise noted

Parameter	Symbol	Test condition	Min	Typ	Max	Units
OFF						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS} = 0\text{ V}, I_D = 250\ \mu\text{A}$	500	--	--	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 500\text{ V}, V_{GS} = 0\text{ V}$	--	--	1	μA
		$V_{DS} = 400\text{ V}, T_C = 125^\circ\text{C}$	--	--	10	μA
Forward Gate-Source Leakage Current	I_{GSSF}	$V_{GS} = 30\text{ V}, V_{DS} = 0\text{ V}$	--	--	100	nA
Reverse Gate-Source Leakage Current	I_{GSSR}	$V_{GS} = -30\text{ V}, V_{DS} = 0\text{ V}$	--	--	-100	nA
ON						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\ \mu\text{A}$	2	--	4	V
Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = 10\text{ V}, I_D = 9\text{ A}$	--	0.25	0.3	Ω
Forward Transconductance (Note 4)	g_{FS}	$V_{DS} = 30\text{ V}, I_D = 9\text{ A}$	--	11	--	S

DYNAMIC

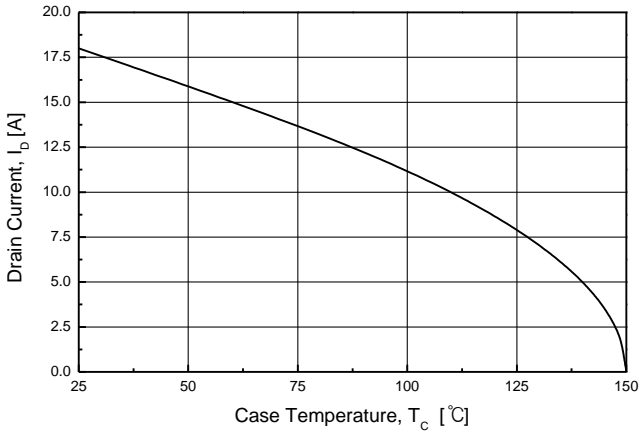
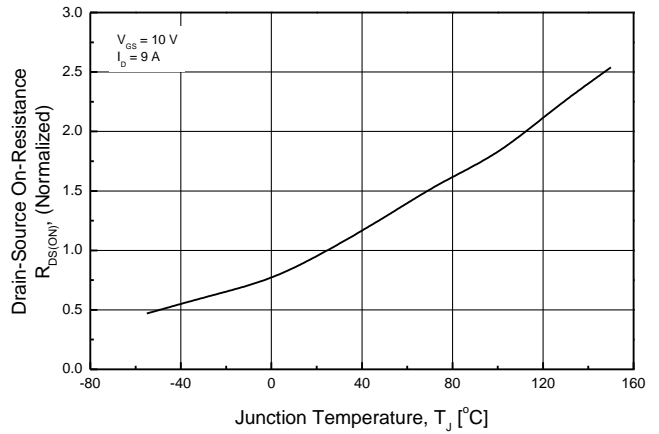
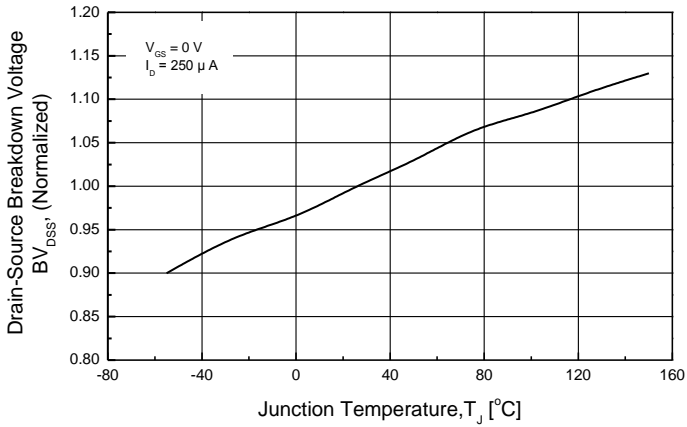
Input Capacitance	C_{iss}	$V_{DS} = 25\text{ V}, V_{GS} = 0\text{ V},$ $f = 1.0\text{ MHz}$	--	3094	TJ	ETM	TJ	ET	AF	ICID	130
Output Capacitance	C_{oss}										

Note :

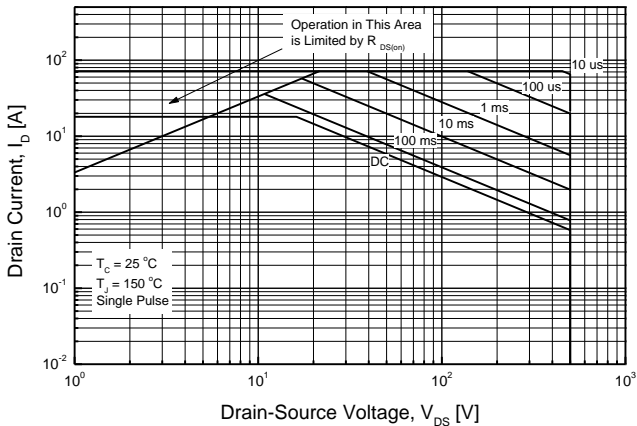
1. Repeated rating : Pulse width limited by safe operating area
2. $L=5.3\text{mH}, I_{AS} = 18\text{A}, V_{DD} = 50\text{V}, R_G = 25\Omega$, Starting $T_j = 25^\circ\text{C}$
3. $I_{SD} \leq 18\text{A}, di/dt \leq 200\text{A}/\mu\text{s}, V_{DD} \leq BV_{DS}$, Starting $T_j = 25^\circ\text{C}$
4. Pulse Test : Pulse width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$
5. Essentially Independent of Operating Temperature Typical Characteristics

TMP20N50/TMPF20N50

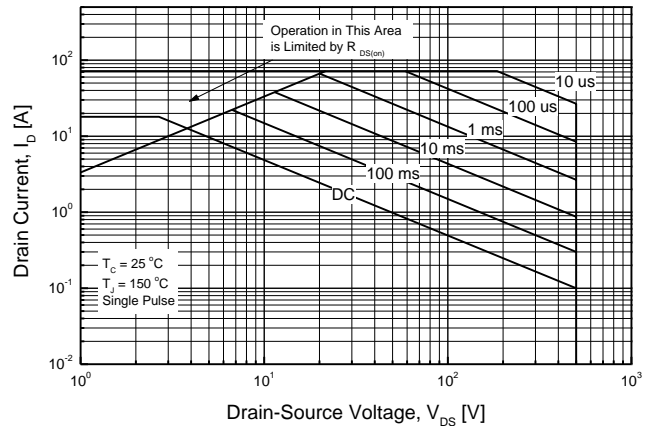
TMP20N50G/TMPF20N50G



TMP20N50(G)

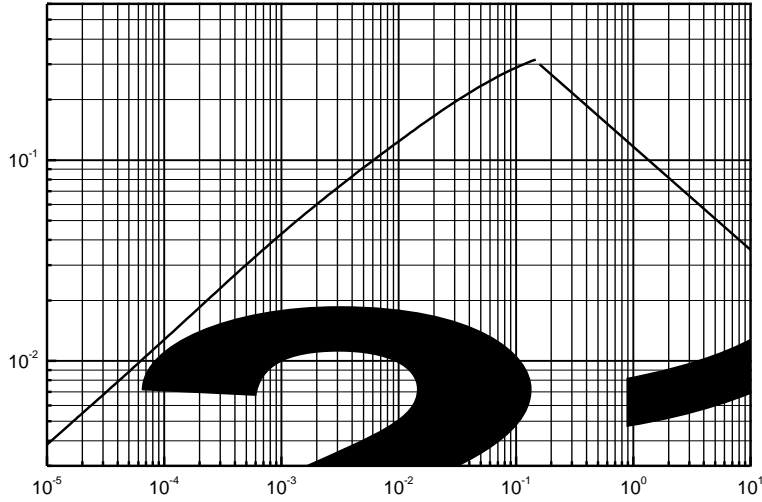


TMPF20N50(G)





TMP20N50(G)



TMPF20N50(G)

