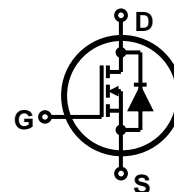
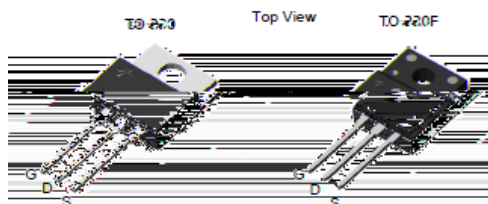


N-channel MOSFET

Features

- Low gate charge
- 100% avalanche tested
- Improved dv/dt capability
- RoHS compliant
- Halogen free package
- JEDEC Qualification

BV_{DSS}	I_D	$R_{DS(on)}$
650V	9.5A	<0.82 Ω



Device	Package	Marking	Remark
TMP10N65A / TMPF10N65A	TO-220 / TO-220F	TMP10N65A / TMPF10N65A	RoHS
TMP10N65AG / TMPF10N65AG	TO-220 / TO-220F	TMP10N65AG / TMPF10N65AG	Halogen Free

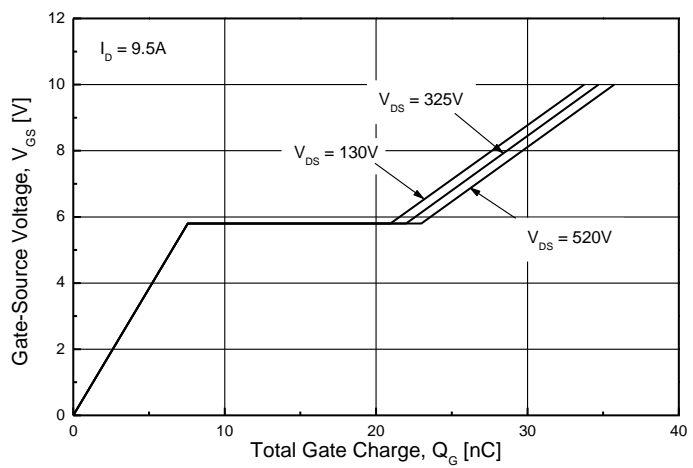
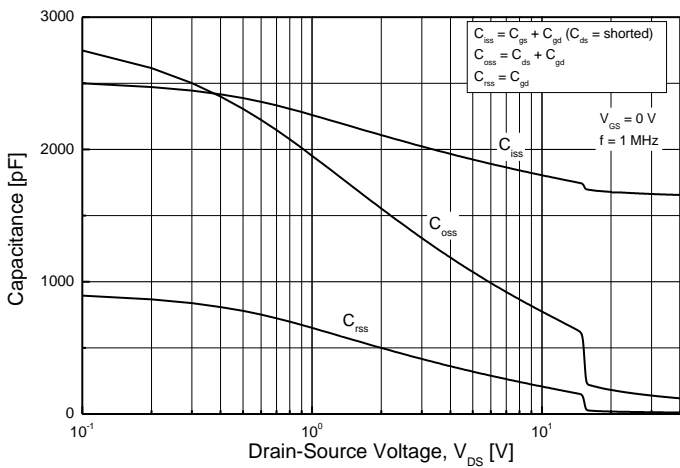
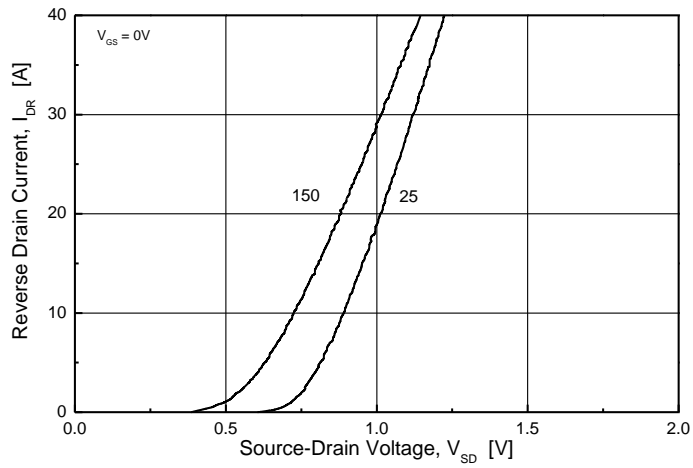
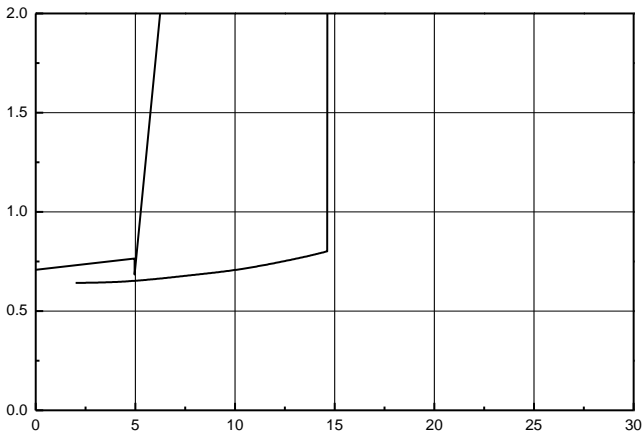
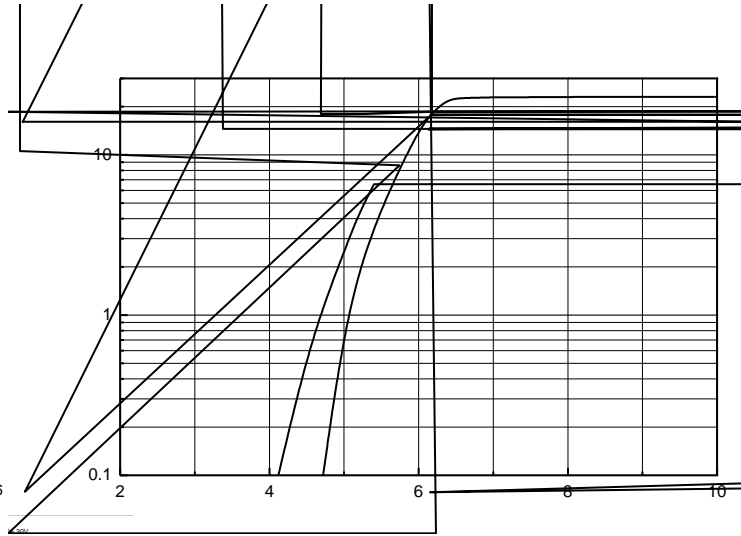
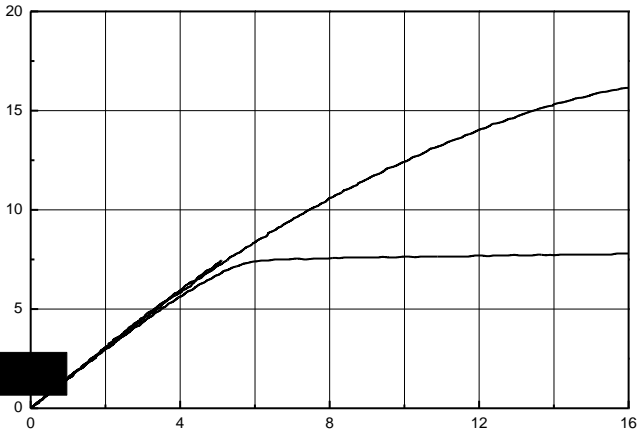
Absolute Maximum Ratings

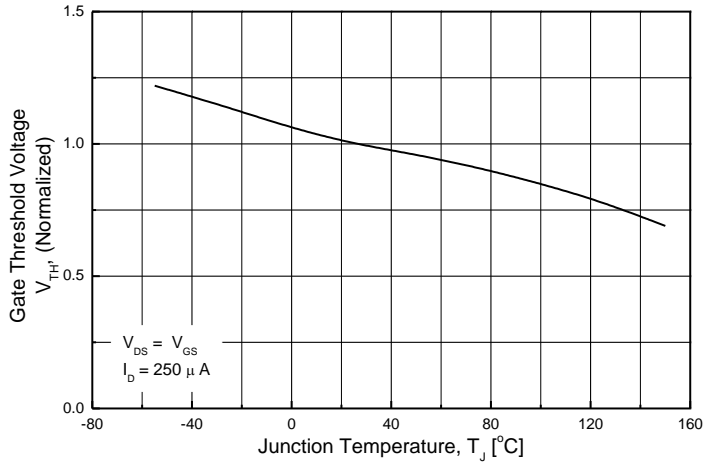
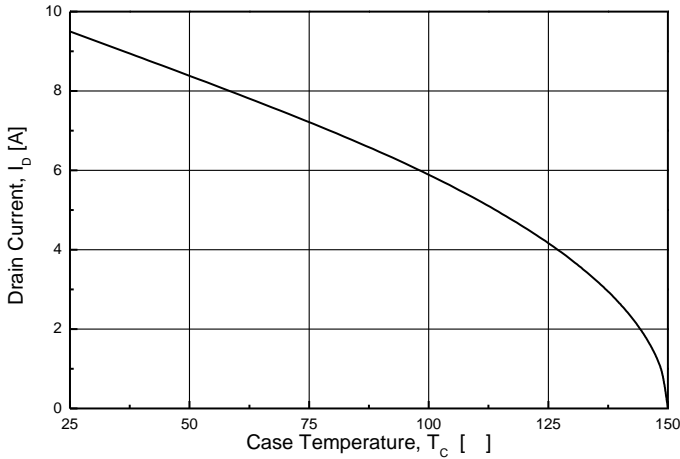
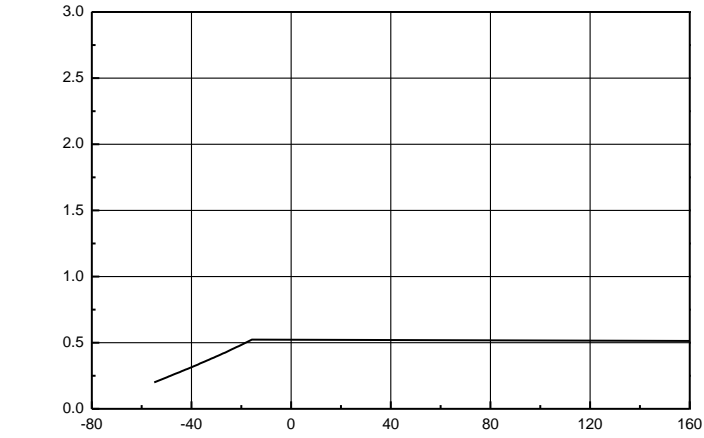
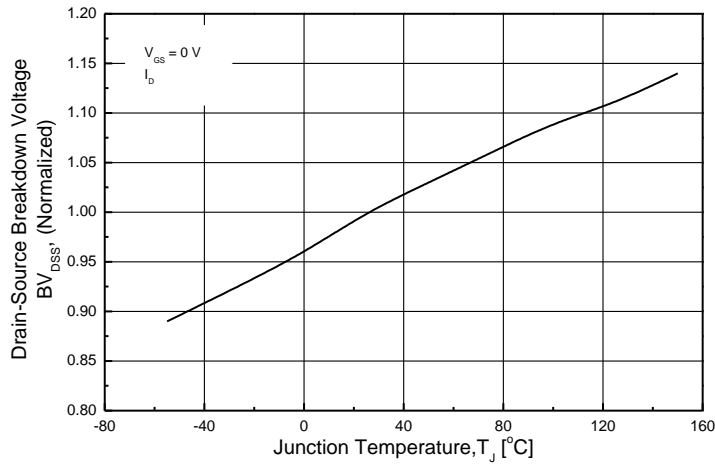
Parameter	Symbol	TMP10N65A(G)	TMPF10N65AG)	Unit	
Drain-Source Voltage	V_{DSS}	650		V	
Gate-Source Voltage	V_{GS}	30		V	
Continuous Drain Current	I_D	$T_C = 25$	9.5	9.5 *	A
		$T_C = 100$	5.83	5.83 *	A
Pulsed Drain Current (Note 1)	I_{DM}	38	38 *	A	
Single Pulse Avalanche Energy (Note 2)	E_{AS}	690		mJ	
Repetitive Avalanche Current (Note 1)	I_{AR}	9.5		A	
Repetitive Avalanche Energy (Note 1)	E_{AR}	19.8		mJ	
Power Dissipation	P_D	$T_C = 25$	198	52	W
		Derate above 25	1.58	0.41	W/
Peak Diode Recovery dv/dt (Note 3)	dv/dt	4.5		V/ns	
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55~150			
Maximum lead temperature for soldering purposes,	T_L	300			

* Limited only by maximum junction temperature

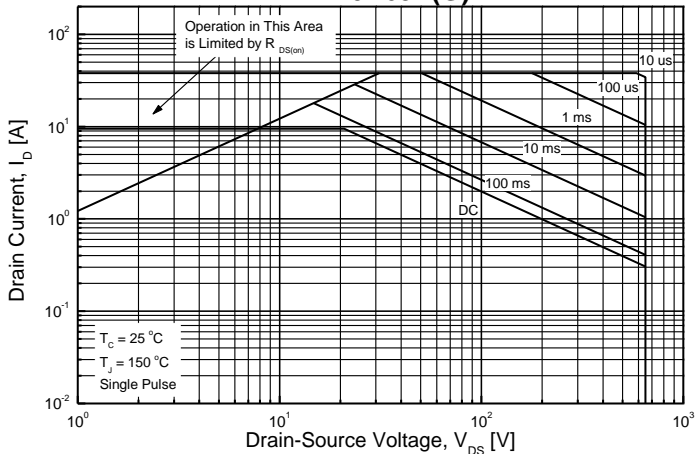
Thermal Characteristics

Parameter	Symbol	TMP10N65A(G)	TMPF10N65A(G)	Unit
Maximum Thermal resistance, Junction-to-Case	$R_{\theta JC}$	0.63	2.4	/W
Maximum Thermal resistance, Junction-to-Ambient	$R_{\theta JA}$	62.5	62.5	/W

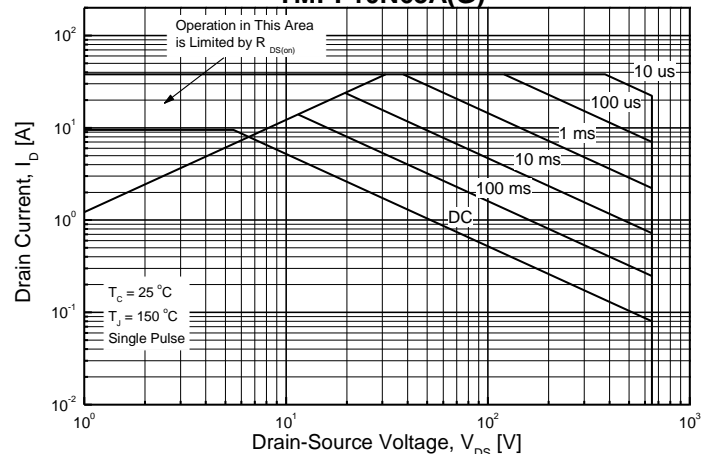




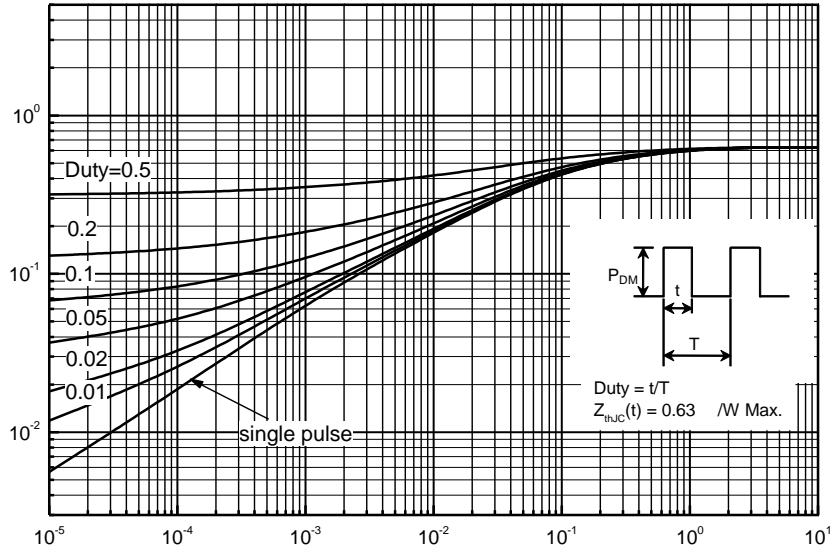
TMP10N65A(G)



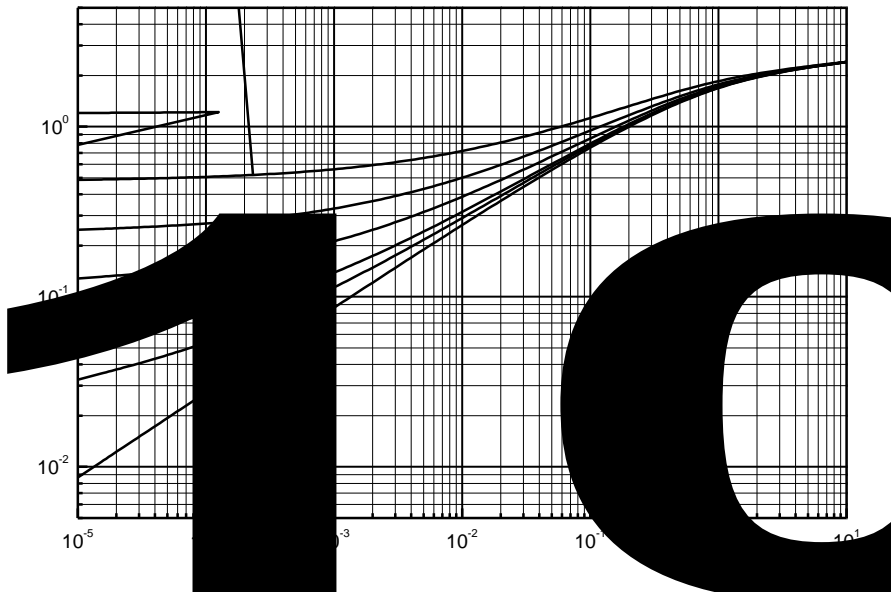
TMPF10N65A(G)



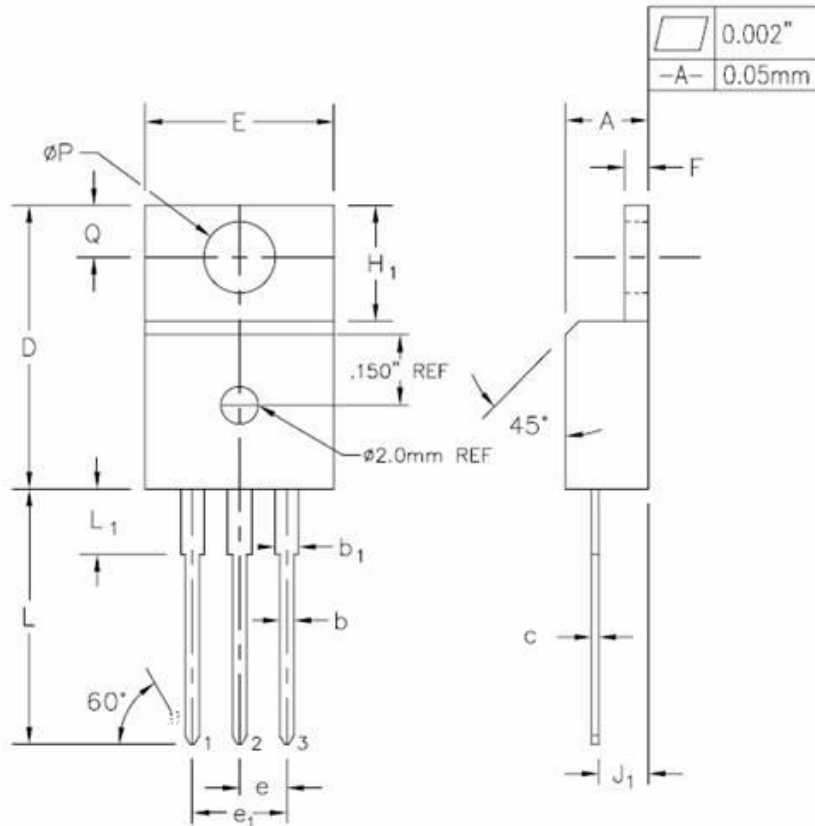
TMP10N65A(G)



TMPF10N65A(G)



TO-220AB-3L MECHANICAL DATA



SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	0.170	0.180	4.32	4.57	
b	0.028	0.036	0.71	0.91	
b ₁	0.045	0.055	1.15	1.39	
c	0.014	0.021	0.36	0.53	
D	0.590	0.610	14.99	15.49	
E	0.395	0.410	10.02	10.41	
e	0.100 TYP.		2.54 TYP.		
e ₁	0.200 BSC		5.08 BSC		
F ₁	0.048	0.054	1.22	1.37	
H ₁	0.235	0.255	5.97	6.47	
J ₁	0.100	0.110	2.54	2.79	
L	0.530	0.550	13.47	13.97	
L ₁	0.130	0.150	3.31	3.81	
2	øP	0.149	3.78	3.80	
	Q	0.102	2.60	2.84	

