

SFF70N10M
SFF70N10Z



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

ELECTRICAL CHARACTERISTICS @ T_J=25°C (Unless Otherwise Specified)

RATING	SYMBOL	MIN	TYP	MAX	UNIT	
Drain to Source Breakdown Voltage (V _{GS} =0 V, I _D =250μA)	BV_{DSS}	100	-	-	V	
Drain to Source on State Resistance (V _{GS} =10 V, T _c =150°C)	R_{DS(on)}	-	0.025	0.03	Ω	
On State Drain Current (V _{DS} > I _{D(on)} x R _{DS(on)} Max, V _{GS} =10 V)	I_{D(on)}	70	-	-	A	
Gate Threshold Voltage (V _{DS} =V _{GS} , I _D =250μA)	V_{GS(th)}	2	-	4.0	V	
Forward Transconductance (V _{DS} > I _{D(on)} X R _{DS(on)} Max, I _{DS} =60% rated I _D)	g_{fs}	20	40	-	Smho	
Zero Gate Voltage Drain Current (V _{DS} =80% rated voltage, V _{GS} =0V) (V _{DS} =80% rated V _{DS} , V _{GS} =0V, T _A =125°C)	I_{DSS}	-	-	250 250	μA	
Gate to Source Leakage Forward Gate to Source Leakage Reverse	At rated V _{GS}	I_{GSS}	- -	- -	+100 -100	nA
Total Gate Charge Gate to Source Charge Gate to Drain Charge	V _{GS} =10 V 80% rated V _{DS} Rated I _D	Q_g Q_{gs} Q_{gd}	- - -	110 30 50	140 40 80	nC
Turn on Delay Time Rise Time Turn off Delay Time Fall Time	V _{DD} =50% rated V _{DS} I _D =70A R _G =8Ω V _{GS} =10V	t_{d(on)} t_r t_{d(off)} t_f	- - - -	25 15 80 15	40 180 100 40	nsec
Diode Forward Voltage (I _S =rated I _D , V _{GS} =0V, T _J =25°C)	V_{SD}	-	1.0	1.8	V	
Diode Reverse Recovery Time Reverse Recovery Charge	T _J =25°C I _F =I _D di/dt=100A/μsec	t_{rr} Q_{RR}	-	1.25 0.3	200 -	nsec μC
Input Capacitance Output Capacitance Reverse Transfer Capacitance	V _{GS} =0 Volts V _{DS} =25 Volts f=1 MHz	C_{iss} C_{oss} C_{rss}	- - -	4100 1200 310	- - -	pF

For thermal derating curves and other characteristic curves please contact SSDI Marketing Department.

NOTES:

1/ Maximum current limited by package, die rated at 70A.