查询"SFF75N10M"供应商

SOLID STATE DEVICES, INC.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

SFF75N10M
SFF75N10Z

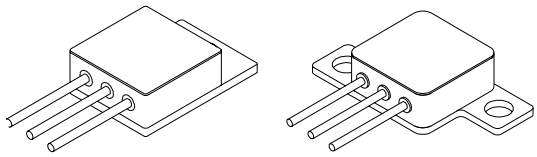
DESIGNER'S DATA SHEET

75 AMP
100 VOLTS
0.025 Ω
N-CHANNEL
POWER MOSFET

FEATURES:

- Rugged construction with poly silicon gate
- low RDS (on) and high transconductance
- Excellent high temperature stability
- Very fast switching speed
- Fast recovery and superior dv/dt performance
- Increased reverse energy capability
- Low input and transfer capacitance for easy paralleling
- Ceramic seals for improved hermeticity
- Hermetically sealed package
- TX, TXV and Space Level screening available
- Replaces: IXTH75N10 Types

TO-254 (M) **TO-254Z (Z)**

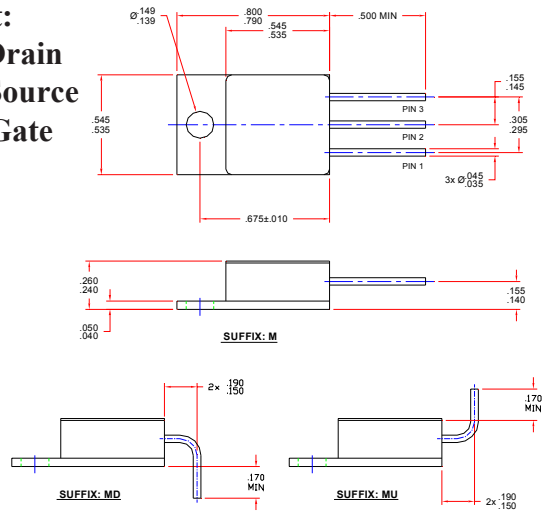


MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Drain to Source Voltage	V_{DS}	100	Volts
Gate to Source Voltage	V_{GS}	± 20	Volts
Continuous Drain Current	I_D	56 1/	Amps
Operating and Storage Temperature	T_{op} & T_{stg}	-55 to +150	°C
Thermal Resistance, Junction to Case	$R_{\theta JC}$	0.83	°C/W
Total Device Dissipation @ TC = 25°C @ TC = 55°C	P_D	150 114	Watts
Repetitive Avalanche Energy	E_{AR}	30	mJ

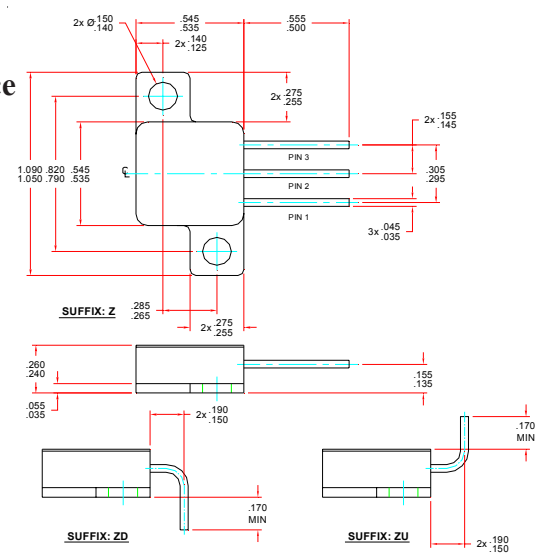
CASE OUTLINE: TO-254 (Sufix M)

Pin Out:
Pin 1: Drain
Pin 2: Source
Pin 3: Gate



CASE OUTLINE: TO-254Z (Sufix Z)

Pin Out:
Pin 1: Drain
Pin 2: Source
Pin 3: Gate



Available with Glass or Ceramic Seals. Contact Factory for details.

NOTE: All specifications are subject to change without notification.
SCDs for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: F00153F

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

RATING		SYMBOL	MIN	TYP	MAX	UNIT
Drain to Source Breakdown Voltage (VGS=0 V, ID=250µA)		BV_{DSS}	100	-	-	V
Drain to Source on State Resistance (VGS=10 V)	ID = 37.5A ID = 75 A	$R_{DS(on)}$	- -	- -	0.025 0.030	Ω
On State Drain Current (VDS > ID(on) x RDS(on) Max, VGS = 10 V)		$I_{D(on)}$	75	-	-	A
Gate Threshold Voltage (VDS = VGS, ID = 4mA)		$V_{GS(th)}$	2	-	4.0	V
Forward Transconductance (VDS > ID(on) X RDS (on) Max, IDS=50% rated ID)		gf_s	25	30	-	Smho
Zero Gate Voltage Drain Current (V_{DS} = max rated voltage, V_{GS} = 0 V) (V_{DS} = 80% rated V_{DS}, V_{GS} = 0V, T_A = 125°C)		I_{DSS}	- -	- -	250 1000	µA
Gate to Source Leakage Forward **Gate to Source Leakage Reverse**	At rated VGS	I_{GSS}	- -	- -	+200 -200	nA
Total Gate Charge **Gate to Source Charge** **Gate to Drain Charge**	VGS = 10 V 50% rated VDS 50% rated ID	**Qg** **Qgs** **Qgd**	- - -	160 16 50	260 70 160	nC
Turn on Delay Time **Rise Time** **Turn off DelayTime** **Fall Time**	VDD=50% rated VDS 50% rated ID RG=6.2Ω VGS=10V	$t_{d\ (on)}$ **tr** $t_{d\ (off)}$ **tf**	- - - -	30 35 100 40	40 100 120 80	nsec
Diode Forvard Voltage (I_S = rated I_D, V_{GS} = 0V, T_J = 25°C)		V_{SD}	-	1.3	1.75	V
Diode Reverse Recovery Time **Reverse Recovery Charge**	TJ =25°C IF = 10A di/dt = 100A/µsec	t_{rr} Q_{RR}	-	120 -	200 -	nsec
Input Capacitance **Output Capacitance** **Reverse Transfer Capacitance**	VGS =0 Volts VDS =25 Volts f =1 MHz	**Ciss** **Coss** **Crss**	- - -	4500 1600 800	- - -	pF

NOTES:

1/ Maximum current limited by package, die rated at 75A.