



Solid State Devices, Inc.

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SFF24N50M
SFF24N50Z

Electrical Characteristics @ T _J = 25°C (Unless Otherwise Specified)		Symbol	Min	Typ	Max	Units
Drain to Source Breakdown Voltage (V _{GS} =0 V, I _D =250 μA)		BV _{DSS}	500	—	—	Volts
Drain to Source On State Resistance (V _{GS} =10 V, I _D =50% Rated ID)		R _{DS(on)}	—	—	0.2	W
On State Drain Current (V _{DS} >I _{D(on)} X R _{DS(on)} Max, V _{GS} =10V)		I _{D(on)}	24	—	—	A
Gate Threshold Voltage (V _{DS} =V _{GS} , I _D = 4mA)		V _{GS(th)}	2.0	—	4.0	V
Forward Transconductance (V _{DS} >I _{D(on)} X R _{DS(on)} Max, I _{DS} = 50% Rated ID)		g _{fs}	8	12	—	mho
Zero Gate Voltage Drain Current (V _{DS} =max rated voltage, V _{GS} =0 V) (V _{DS} =80% rated V _{DS} , V _{GS} =0 V, T _A =125°C)		I _{DSS}	—	—	250 1000	mA
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 Volts 50% rated V _{DS} 50% Rated ID	Q _g Q _{gs} Q _{gd}	—	135 28 62	180 40 85	nC
Turn on Delay Time Rise Time Turn on Delay Time Fall Time	V _{DD} =50% Rated V _{DS} 50% Rated ID R _G = 6.2Ω V _{GS} =10 Volts	t _{d(on)} t _r t _{d(off)} t _f	—	16 33 65 30	30 45 130 40	nsec
Diode Forward Voltage (I _S = Rated I _D , V _{GS} =0 V, T _J =25°C)		V _{SD}	—	—	1.5	V
Diode Reverse Recovery Time Reverse Recovery Charge	T _J =25°C I _F =10A Di/dt=100A/μsec	t _{rr} Q _{RR}	—	—	500 —	nsec nC
Input Capacitance Input Capacitance Reverse Transfer Capacitance	V _{GS} =0 Volts V _{DS} =25 Volts f=1 MHz	C _{iss} C _{oss} C _{rss}	—	4200 450 135	— — —	pF

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

Available Part Numbers:

**SFF24N50M; SFF24N50MDB; SFF24N50MUB;
 SFF24N50Z; SFF24N50ZDB; SFF24N50ZUB;**

PIN ASSIGNMENT (Standard)

Package	Drain	Source	Gate
TO-254 (M)	Pin 1	Pin 2	Pin 3
TO-254Z (Z)	Pin 1	Pin 2	Pin 3

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

DATA SHEET #: F00165F

DOC



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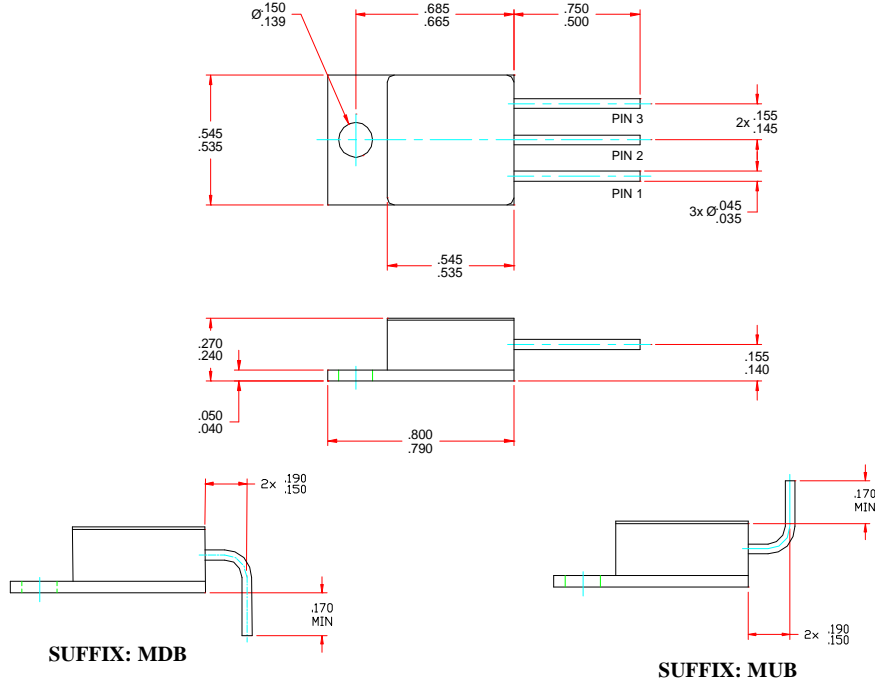
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SFF24N50M
SFF24N50Z

Case Outline: TO-254 (M)



Case Outline: TO-254Z (Z)

