

SFF9230M
SFF9230Z

14849 Firestone Boulevard · La Mirada, CA 90638
 Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

Designer's Data Sheet

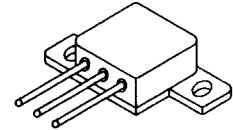
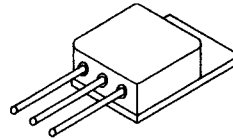
-6.5 AMP
-200 VOLTS
0.80Ω
P-CHANNEL
POWER MOSFET

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
- Hermetically sealed
- TX, TXV and Space Level Screening available
- Replaces: IRF9130 Types

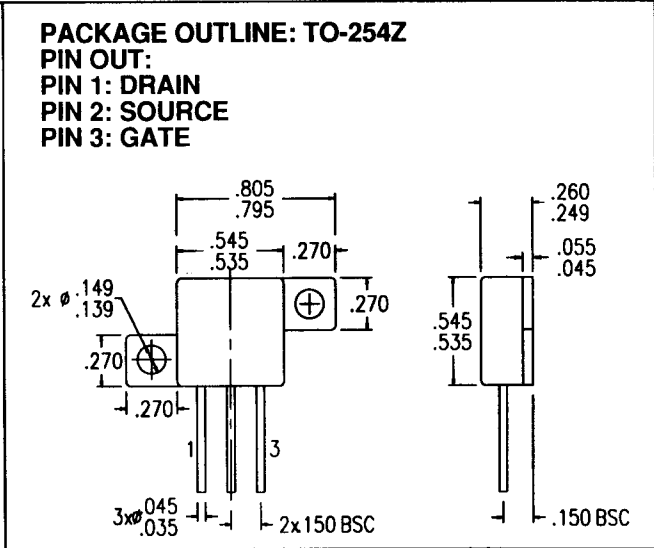
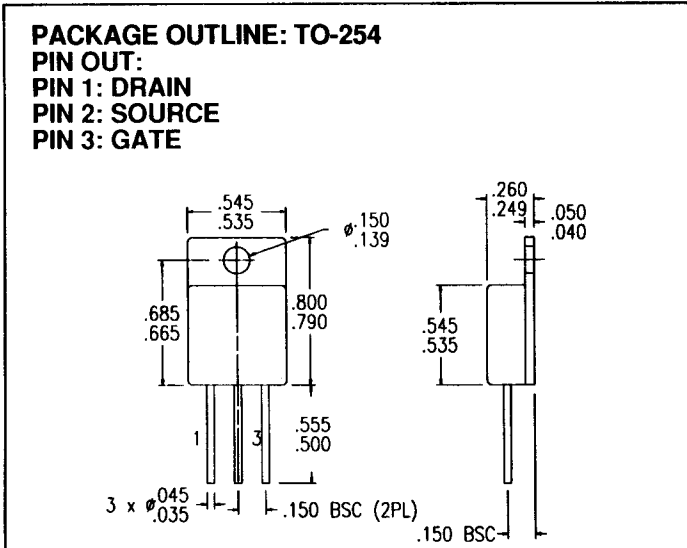
TO-254

TO-254Z



MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Drain to Source Voltage	V _{DS}	-200	Volts
Gate to Source Voltage	V _{GS}	±20	Volts
Continuous Drain Current	I _D	-6.5	Amps
Operating and Storage Temperature	Top & Tstg	-55 to +150	°C
Thermal Resistance, Junction to Case	R _{θJC}	2.0	°C/W
Total Device Dissipation @ TC=25°C	P _D	63	Watts
Total Device Dissipation @ TC=55°C		48	



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

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: FP0029 B	MED
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PRELIMINARY



SOLID STATE DEVICES, INC

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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)		BVDSS	-200	---	---	V
Drain to Source on State Resistance (VGS= -10 V, ID=60% Rated ID)		RDS(on)	---	0.5	0.8	Ω
On State Drain Current (VDS > ID(on) X RDS(on) Max, VGS= -10 V)		ID(on)	-6.5	---	---	A
Gate Threshold Voltage (VDS=VGS, ID= -250μA)		VGS(th)	-2.0	---	-4.0	V
Forward Transconductance (VDS > ID(on) X RDS(on) Max, IDS=60% rated ID)		gfs	2.2	3.5	---	S(Ω)
Zero Gate Voltage Drain Current (VDS=max rated voltage, VGS=0 V) (VDS=80% rated VDS, VGS=0 V, TA=125°C)		IDSS	---	---	-250 -1000	μA
Gate to Source Leakage Forward Gate to Source Leakage Reverse	At rated VGS	IGSS	---	---	-100 100	nA
Total Gate Charge Gate to Source Charge Gate to Drain Charge	VGS= -15 Volts 80% rated VDS ID= 8 A	Qg Qgs Qgd	---	31 18 13	45 ---	nC
Turn on Delay Time Rise Time Turn Off Delay Time Fall Time	VDD=50% rated VDS 50% rated ID RG= 50 Ω	td(on) tr td(off) tf	---	30 50 50 40	50 100 100 80	nsec
Diode Forward Voltage (IS=rated ID, VGS=0 V, T _J =25°C)		VSD	---	---	-6.5	V
Diode Reverse Recovery Time Reverse Recovery Charge	T _J =150°C IF=rated ID di/dt=100 A/μsec	trr QRR	---	400 2.6	---	nsec μC
Input Capacitance Output Capacitance Reverse Transfer Capacitance	VGS=0 Volts VDS= -25 Volts f= 1 MHz	Ciss Coss Crss	---	550 170 50	650 300 90	pF

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