

N-CHANNEL ENHANCEMENT MOS FET

ABSOLUTE MAXIMUM RATINGS			
PARAMETER	SYMBOL		UNITS
Drain-source Volt.(1)	VDSS	600	Vdc
Drain-Gate Voltage (R _{GS} =1.0M Ω) (1)	VDGR	600	Vdc
Gate-Source Voltage Continuous	VGS	± 20	Vdc
Drain Current Continuous (T _c = 25°C)	ID	1.5	Adc
Drain Current Pulsed(3)	IDM	6.0	A
Total Power Dissipation	PD	50	W
Power Dissipation Derating > 25°C		0.4	W/°C
Operating & Storage Temp.	TJ/Tstg	-55 TO +150	°C
Thermal Resistance	RthJc	2.5	°C/W
Max. Lead temperature	TL	300	°C

600V, 1.5A, 6.0 Ω

SDF1NA60 JAA
SDF1NA60 JAB
SDF1NA60 JDA

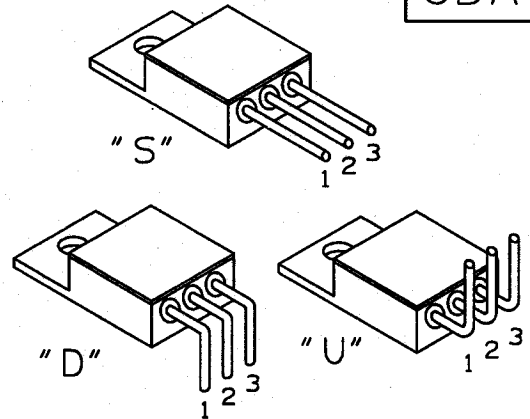
FEATURES

- RUGGED PACKAGE
- HI-REL CONSTRUCTION
- CERAMIC EYELETS: JAA, JAB
- LEAD BENDING OPTIONS
- COPPER CORED 52 ALLOY PINS
- LOW IR LOSSES
- LOW THERMAL RESISTANCE
- OPTIONAL MIL-S-19500 SCREENING

ELECTRICAL CHARACTERISTICS T _c = 25°C (UNLESS OTHERWISE SPECIFIED)						
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Drain-source Breakdown Volt.	V(BR)DSS	VGS=0V ID=250 μ A	600	-	-	V
Gate Threshold Voltage	VGS(TH)	VDS=VGS ID=250 μ A	2.0	-	4.0	V
Gate Source Leakage	IGSS	VGS= ± 20 V	-	-	100	nA
Zero Gate Voltage Drain Current	IDSS	VDS=MAX.RATING VGS=0	-	-	100	μ A
		VDS=0.8 MAX.RATING VGS=0 TJ=125°C	-	-	2.0	mA
Static Drain-Source On-State Resistance(1)	RDS(ON)	VGS=10 V ID=0.5A	-	-	6.0	Ω
Forward Trans-Conductance (2)	gfs	VDS \geq 2.5V ID=0.5A	0.5	-	-	S(U)
Input Capacitance	CISS	VGS=0V VDS=25 V f=1.0 MHz	-	-	650	pF
Output Capacitance	COSS		-	-	125	pF
Reverse Transfer Capacitance	CRSS		-	-	50	pF
Turn-On Delay	td(on)	VDD=25V Rs=50 Ω	-	-	15	ns
Rise Time	tr	ID=0.5A (MOSFET switching times are essentially independent of operating temp.)	-	-	15	ns
Turn-Off Delay	td(off)		-	-	100	ns
Fall Time	tf		-	-	25	ns

STANDARD BEND CONFIGURATIONS

JAA
JDA

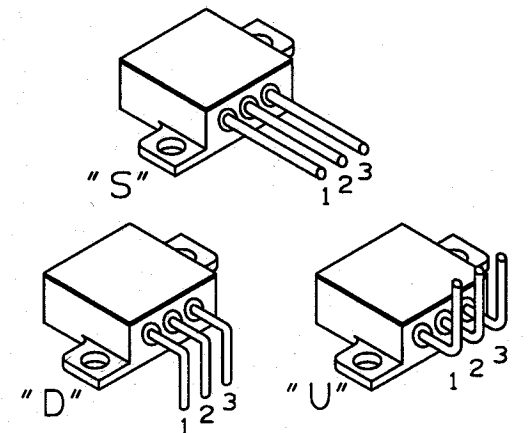


(CUSTOM BEND OPTIONS AVAILABLE)

SOURCE-DRAIN DIODE RATINGS & CHARACT. T _c = 25°C (UNLESS OTHERWISE SPECIFIED)						
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Diode Forward Voltage (2)	VSD	IF=1.5A VGS=0V T _c =+25°C	-	-	1.5	V
Reverse Recovery Time	t _{rr}	T _c =+25°C IF=1.5A	-	450	-	ns

STANDARD BEND CONFIGURATIONS

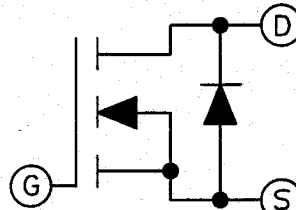
JAB



(CUSTOM BEND OPTIONS AVAILABLE)

TERMINAL CONNECTIONS			
G		H	
1	GATE	1	DRAIN
2	DRAIN	2	SOURCE
3	SOURCE	3	GATE

SCHEMATIC



(1) T_J = 25°C to 150°C.
(2) Pulse test: Pulse Width < 300 μ S, Duty Cycle < 2%.
(3) Repetitive Rating: Pulse Width limited By Max. junction Temperature.