

MFE825

CASE 22-03, STYLE 2
TO-18 (TO-206AA)

MOSFET

N-CHANNEL — DEPLETION

Refer to 2N3796 for graphs.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	Vdc
Gate-Source Voltage	V_{GS}	30	Vdc
Drain Current	I_D	25	mA
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	200 1.6	mW mW/ $^\circ\text{C}$
Junction Temperature Range	T_J	150	$^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Drain-Source Breakdown Voltage ($I_D = 1.0\ \mu\text{A}$, $V_{GS} = -8.0\ \text{V}$)	$V_{(BR)DSX}$	20	—	Vdc
Gate Reverse Current ($V_{GS} = -10\ \text{V}$, $V_{DS} = 0\ \text{V}$)	I_{GSS}	—	-1.0	pA
Gate Source Voltage ($I_D = 1.0\ \mu\text{A}$, $V_{DS} = 2.0\ \text{V}$)	V_{GS}	0	-2.0	Vdc
ON CHARACTERISTICS				
Zero-Gate-Voltage Drain Current ($V_{DS} = 10\ \text{V}$, $V_{GS} = 0$)	I_{DSS}	1.0	25	mA
SMALL-SIGNAL CHARACTERISTICS				
Forward Transfer Admittance ($V_{DS} = 10\ \text{V}$, $V_{GS} = 0$, $f = 1.0\ \text{kHz}$)	$ y_{fs} $	500	—	μmhos