

DESCRIPTION

The GMT JFET is designed for applications needing the unique features that only a JFET offers, such as high linearity, tightly controlled drain characteristics and the ability to custom tailor the device to meet customer requirements. Please contact GMT Applications Engineering for further details.

APPLICATIONS

- Analog Switches.
- Chopper Stabilized Amplifiers.
- Commutators.
- Normally "ON" Switches.
- Current Limiters.
- Low Level Analog Sample and Hold Circuits.

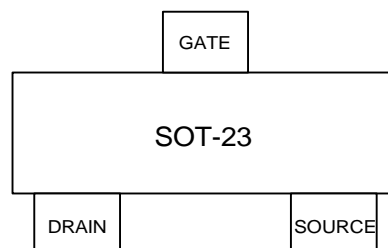
FEATURES

- SOT-23 Three Lead Package.
- Tight $R_{ds(on)}$ Specification.
- Available in Tape and Reel for Automated Assembly.

ABSOLUTE MAXIMUM RATINGS

($T_A = 25^\circ\text{C}$ unless otherwise specified)

Gate to Drain Voltage.....	30 V
Gate to Source Voltage.....	30 V
Forward Gate Current	50 mA
Storage Temperature Range.....	-55°C to 150°C
Operating Junction Temperature Range	-55°C to 150°C



Note: Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions above those listed in the electrical specifications is not implied. Exposure to the absolute maximum rating conditions for extended periods may affect device reliability.

Table 1: THERMAL CHARACTERISTICS

SYMBOL	CHARACTERISTIC	MAX	UNITS
P_D	Total Device Dissipation Derate above 25°C	350 2.8	mW mW/ $^\circ\text{C}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	125	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^\circ\text{C}/\text{W}$

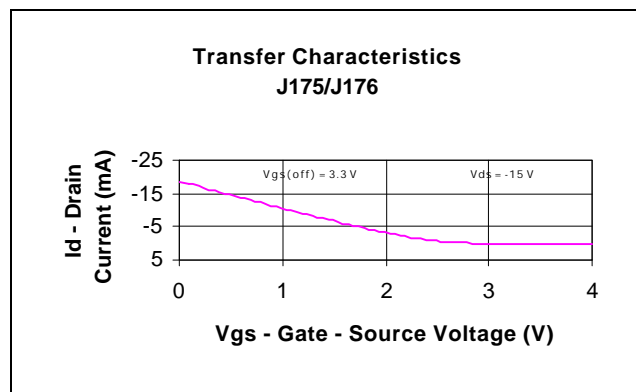
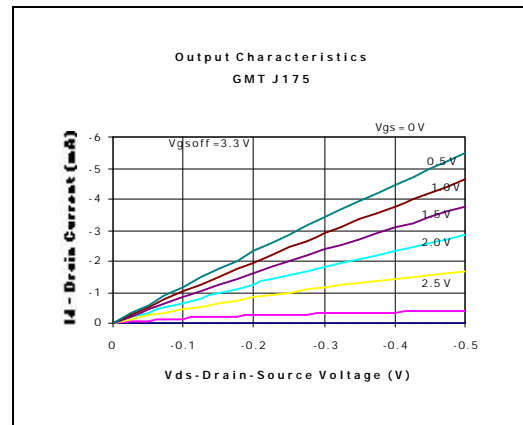
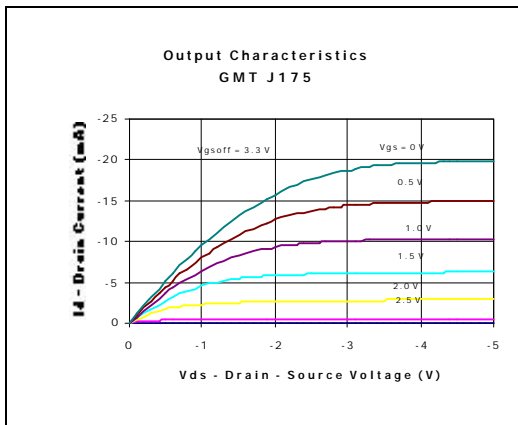
GMTJ175

GMTJ176

P-CHANNEL JFET SWITCH

Table 2: ELECTRICAL SPECIFICATIONS (J175 and J176)

SYMBOL	PARAMETER	CONDITIONS	GMTJ175		GMTJ176		UNITS
			MIN	MAX	MIN	MAX	
BV _{gss}	Gate-source break-down voltage	V _{ds} = 0.0 V, I _g = 1.0 uA	30		30		V
I _{gss}	Gate reverse current	V _{ds} = 0.0 V, V _{gs} = 20 V		1		1	nA
V _{gs} (off)	Gate-source cutoff voltage	V _{ds} = -15 V, I _{ds} = -10 nA	3	6	1	4	V
I _{dss}	Zero-gate voltage drain current @V _{ds} = -15 V	V _{ds} = -15 V, V _{gs} = 0.0 V	-7.0	-60	-2.0	-25	mA
R _{ds(on)}	Drain-source on resistance	V _{gs} = 0.0 V, V _{ds} = -0.1 V		125		250	ohms



GMTJ175
GMTJ176
P-CHANNEL JFET SWITCH

LIFE SUPPORT USAGE POLICY:

GMT's products are not authorized for use as critical components in life support devices or systems without the express written approval of the CEO of GMT. As used herein:

(a) Life support devices or systems are devices or systems which (1) are intended for surgical implant into the body, or (2) support or sustain life, and whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.

(b) A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system.

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