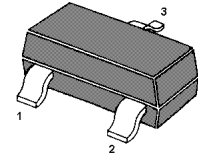
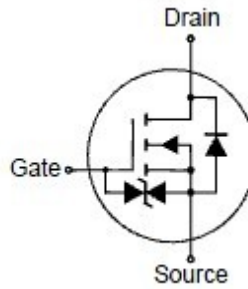


N-Channel Enhancement Mode Field Effect Transistor Features

- Low on resistance $R_{DS(ON)}$
- Low gate threshold voltage
- Low input capacitance
- ESD protected up to 2KV

Marking Code:6Z



1.G 2.S 3.D

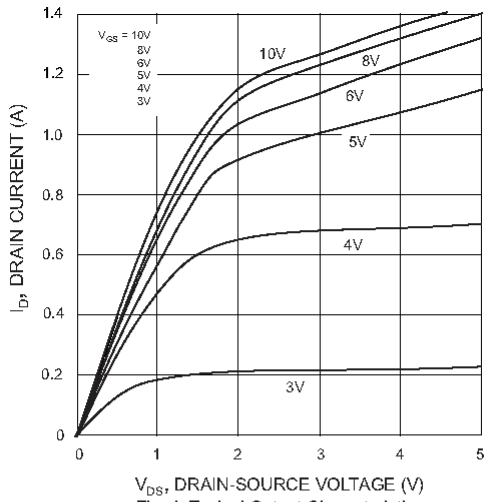
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

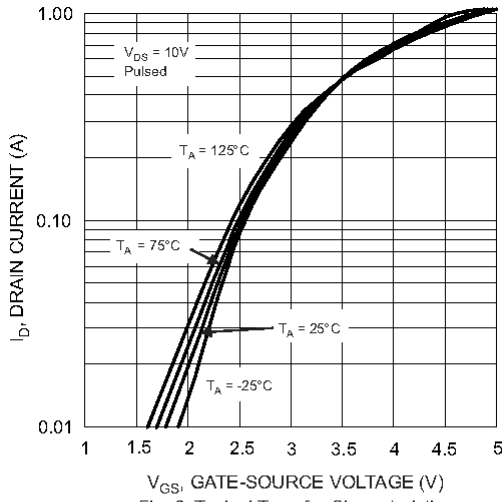
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DSS}	60	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current (Continuous)	I_D	300	mA
Drain Current (Pulse Width $\leq 10\ \mu\text{s}$)	I_{DM}	800	mA
Total Power Dissipation	P_{tot}	350	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

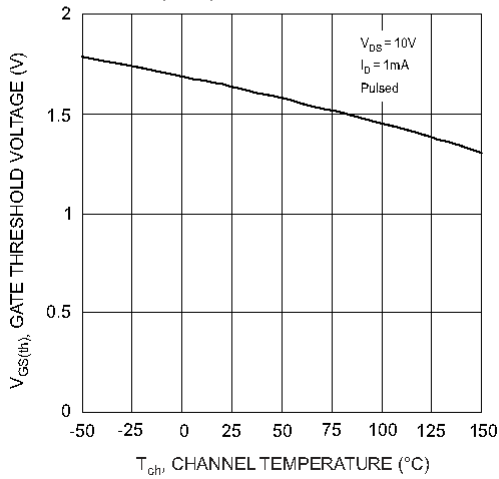
Parameter	Symbol	Min.	Max.	Unit
Drain Source Breakdown Voltage at $I_D = 10\ \mu\text{A}$	BV_{DSS}	60	-	V
Zero Gate Voltage Drain Current at $V_{DS} = 60\ \text{V}$	I_{DSS}	-	1	μA
Gate Source Leakage Current at $V_{GS} = \pm 20\ \text{V}$	I_{GSS}	-	± 10	μA
Gate Threshold Voltage at $V_{DS} = 10\ \text{V}, I_D = 250\ \mu\text{A}$	$V_{GS(th)}$	1	2.5	V
Static Drain Source On-Resistance at $V_{GS} = 10\ \text{V}, I_D = 500\ \text{mA}$ at $V_{GS} = 4.5\ \text{V}, I_D = 200\ \text{mA}$	$R_{DS(ON)}$	- -	3 4	Ω
Forward Transconductance at $V_{DS} = 10\ \text{V}, I_D = 200\ \text{mA}$	g_{fs}	80	-	mS
Input Capacitance at $V_{DS} = 25\ \text{V}, f = 1\ \text{MHz}$	C_{iss}	-	50	pF
Output Capacitance at $V_{DS} = 25\ \text{V}, f = 1\ \text{MHz}$	C_{oss}	-	25	pF
Reverse Transfer Capacitance at $V_{DS} = 25\ \text{V}, f = 1\ \text{MHz}$	C_{rss}	-	5	pF



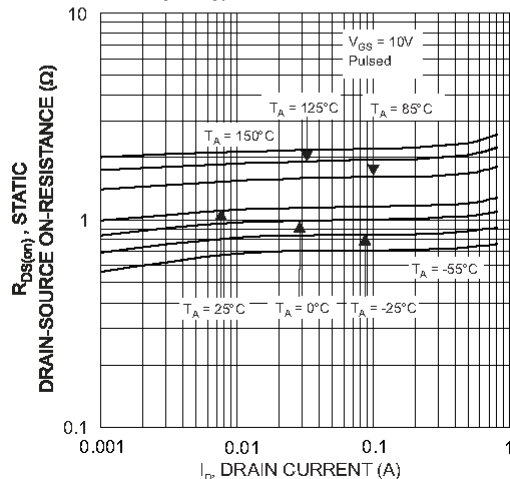
V_{DS} , DRAIN-SOURCE VOLTAGE (V)
Fig. 1 Typical Output Characteristics



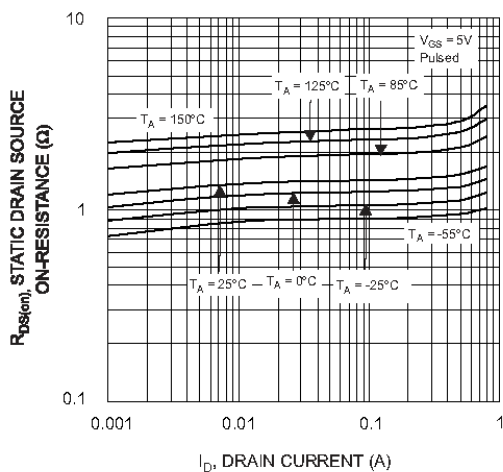
V_{GS} , GATE-SOURCE VOLTAGE (V)
Fig. 2 Typical Transfer Characteristics



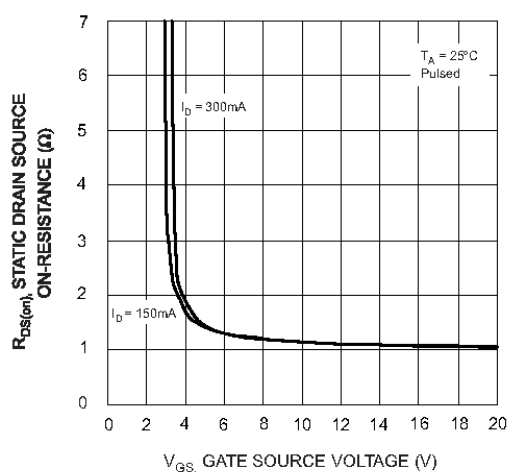
T_{CH} , CHANNEL TEMPERATURE (°C)
Fig. 3 Gate Threshold Voltage vs. Channel Temperature



$R_{DS(on)}$, STATIC DRAIN-SOURCE ON-RESISTANCE (Ω)
 I_D , DRAIN CURRENT (A)
Fig. 4 Static Drain-Source On-Resistance vs. Drain Current



I_D , DRAIN CURRENT (A)
Fig. 5 Static Drain-Source On-Resistance vs. Drain Current

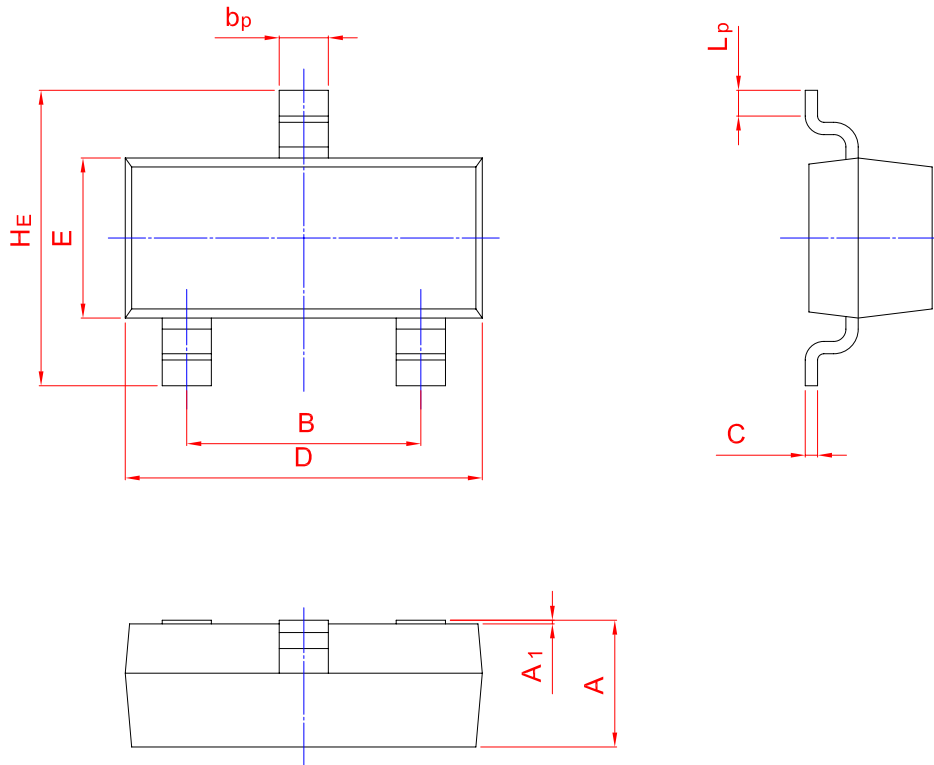
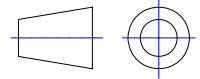


V_{GS} , GATE SOURCE VOLTAGE (V)
Fig. 6 Static Drain-Source On-Resistance vs. Gate-Source Voltage

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20