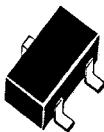
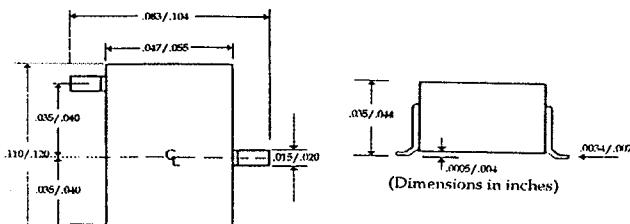


N-CHANNEL ENHANCEMENT-MODE
MOS TRANSISTORDescription
SOT-23

Mechanical Dimensions



Absolute Maximum Ratings

Drain-Source Voltage.....	60 V
Drain-Gate Voltage ($R_{GS}=1\text{M}\Omega$)	60 V
Gate-Source Voltage	+/-40 V
Continuous Drain Current ($T_a=25^\circ\text{C}$)(1)	200 mA
Continuous Drain Current ($T_a=100^\circ\text{C}$)(1)	115 mA
Pulsed Drain Current ($T_a=25^\circ\text{C}$)(2).....	800 mA
Total Power Dissipation ($T_c=25^\circ\text{C}$).....	200 mW
Derate above 25°C	0.16 Mw / °C
Storage Temperature.....	-55 to 150 °C
Operating Junction Temperature	-55 to 150 °C
Lead Temperature, for 10 second Soldering.....	260 °C

Thermal Characteristics

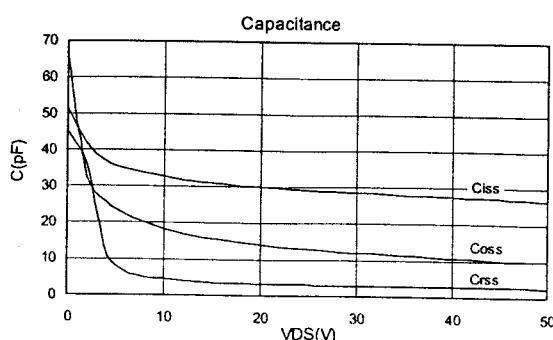
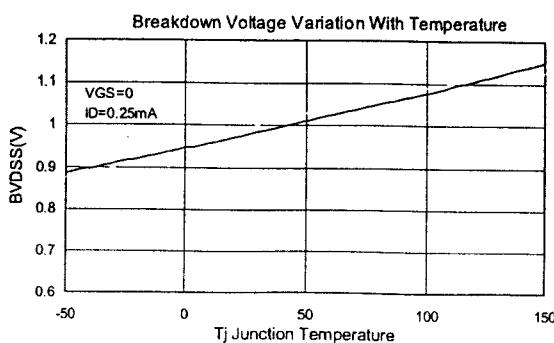
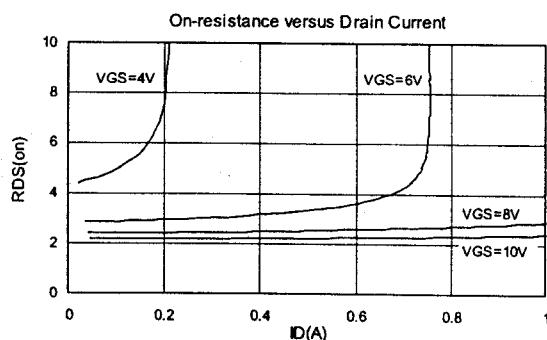
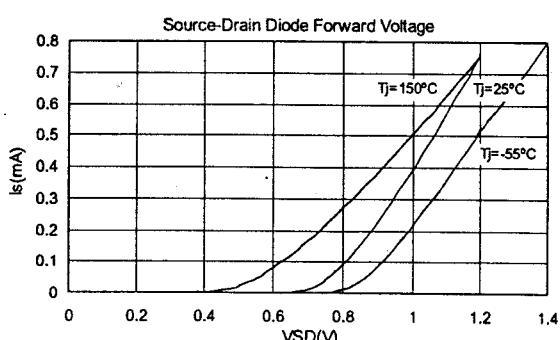
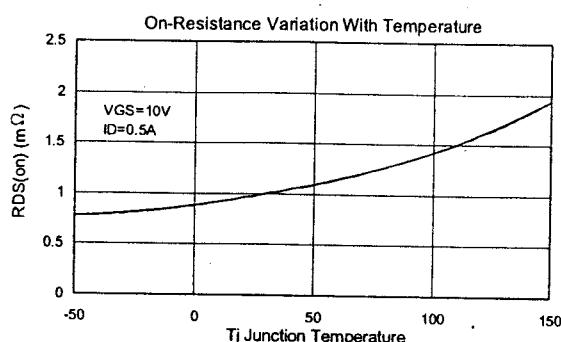
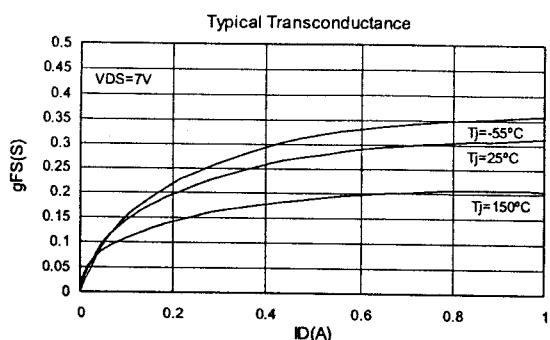
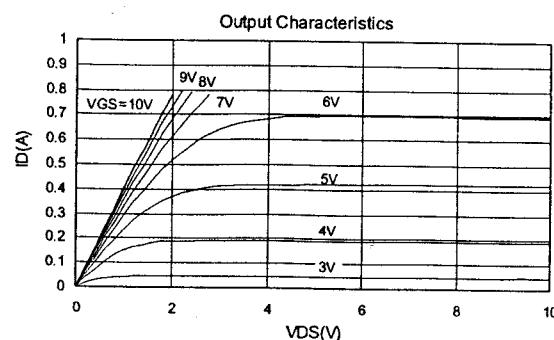
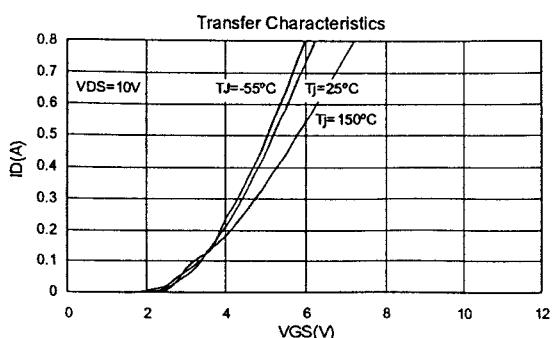
Thermal Resistance, Junction-to-Ambient	625 °C / W
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Characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$\text{V}_{\text{GS}}=0, \text{ID}=10\mu\text{A}$	60	-	-	V
Gate Threshold Voltage	$\text{V}_{\text{GS}(\text{th})}$	$\text{V}_{\text{DS}}=2.5\text{V}, \text{ID}=0.25\text{mA}$	1	-	2.5	V
Gate Source Leakage Current, Forward	$\text{IG}_{\text{SS/F}}$	$\text{V}_{\text{GS}}=+20\text{V}, \text{V}_{\text{DS}}=0$	-	-	100	nA
Gate Source leakage Current, Reverse	$\text{IG}_{\text{SS/R}}$	$\text{V}_{\text{GS}}=-20\text{V}, \text{V}_{\text{DS}}=0$	-	-	100	nA
Zero Gate Voltage Drain Current	ID_{SS}	$\text{V}_{\text{DS}}=60\text{V}, \text{V}_{\text{GS}}=0$	-	-	1	μA
On-State Drain Current	$\text{ID}(\text{ON})$	$\text{V}_{\text{DS}}>2\text{V}_{\text{DS}(\text{ON})}, \text{V}_{\text{GS}}=10\text{V}$	500	-	-	mA
Static Drain-Source On-State Voltage	$\text{V}_{\text{DS}(\text{ON})}$	$\text{ID}=50\text{mA}, \text{V}_{\text{GS}}=5\text{V}$	-	-	0.375	V
		$\text{ID}=500\text{mA}, \text{V}_{\text{GS}}=10\text{V}$	-	-	3.75	V
Static Drain-Source On-State Resistance	$\text{R}_{\text{DS}(\text{ON})}$	$\text{ID}=50\text{mA}, \text{V}_{\text{GS}}=5\text{V}$	-	-	7.5	Ω
		$\text{ID}=500\text{mA}, \text{V}_{\text{GS}}=10\text{V}$	-	-	7.5	Ω
Forward Transconductance	G_{FS}	$\text{V}_{\text{DS}}>2\text{V}_{\text{DS}(\text{ON})}, \text{ID}=200\text{mA}$	80	-	-	mS
Input Capacitance	C_{iss}	$\text{V}_{\text{DS}}=25\text{V}, \text{V}_{\text{GS}}=0, f=1\text{MHz}$	-	-	50	pF
Output Capacitance	C_{oss}		-	-	25	pF
Reverse Transfer Capacitance	C_{rss}		-	-	5	pF

(1)The Power Dissipation of the package may result in a continuous drain current.

(2)Pulse Width≤300us, Duty cycle≥2%.





Data Sheet

N-CHANNEL ENHANCEMENT-MODE MOS TRANSISTOR

