

INJ0203BC1

High Speed Switching
Silicon P-channel MOSFET

DESCRIPTION

INJ0203BC1 is a Silicon P-channel MOSFET.

This product is most suitable for use such as portable machinery, because of low voltage drive and low on resistance.

FEATURE

- Input impedance is high, and not necessary to consider a drive electric current.
- Drive voltage -2.5V
- Low on Resistance. $R_{DS(on)}=100\text{m}\Omega$ (TYP).
- Small package for easy mounting.

APPLICATION

Switching

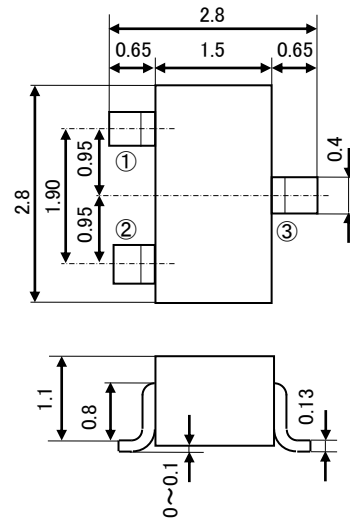
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-20	V
Gate-Source Voltage	V_{GSS}	± 10	V
Drain Current(DC)	I_D	-2	A
Drain Current(Pulse) ※1	I_{DP}	-4	A
Total Power Dissipation	P_D	200	mW
Channel Temperature	T_{ch}	+150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~+150	$^\circ\text{C}$

※1: $P_w \leq 10 \mu\text{s}$, Duty cycle $\leq 1\%$

OUTLINE DRAWING

Unit: mm



JEITA: SC-59

JEDEC: Similar to TO-236

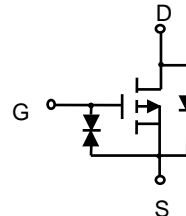
TERMINAL CONNECTOR

①: GATE

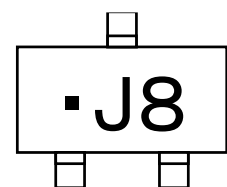
②: SOURCE

③: DRAIN

EQUIVALENT CIRCUIT



MARKING



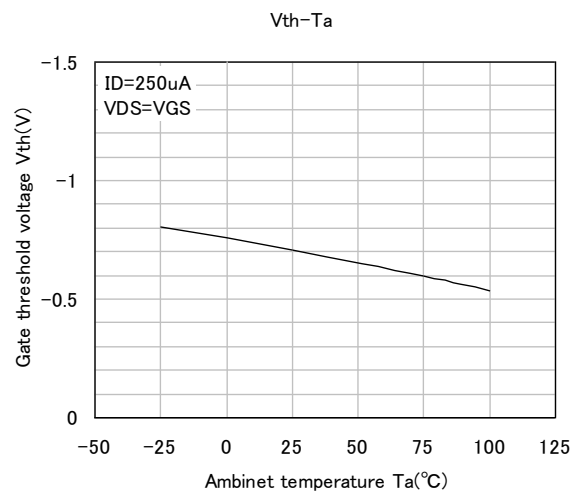
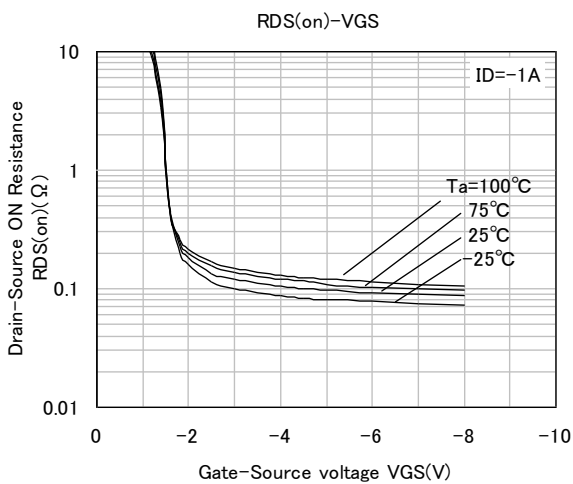
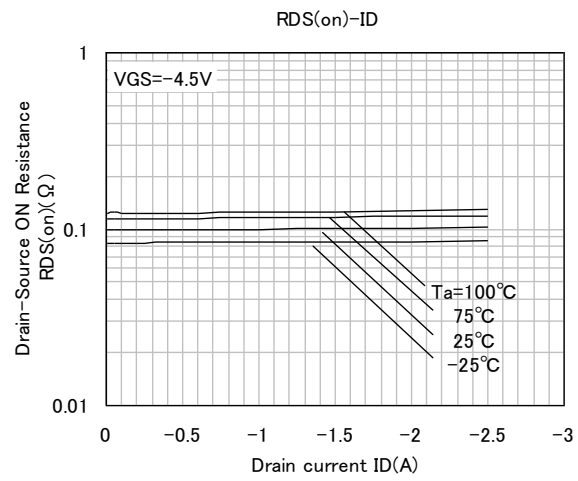
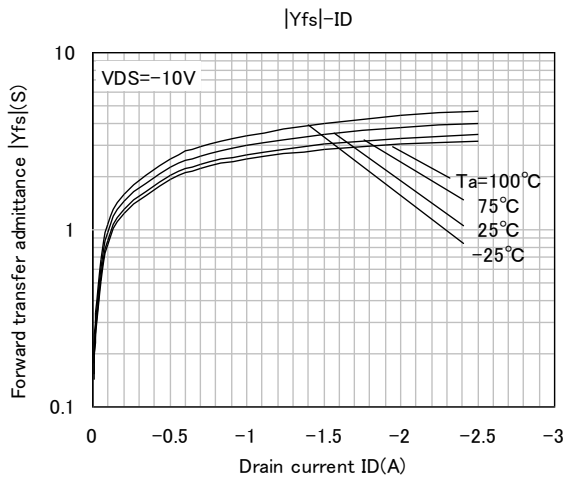
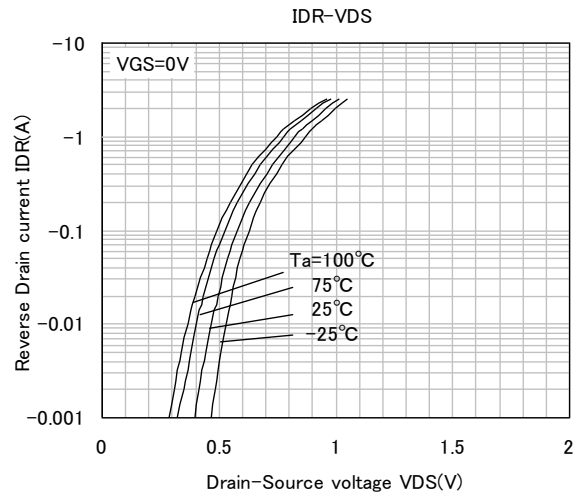
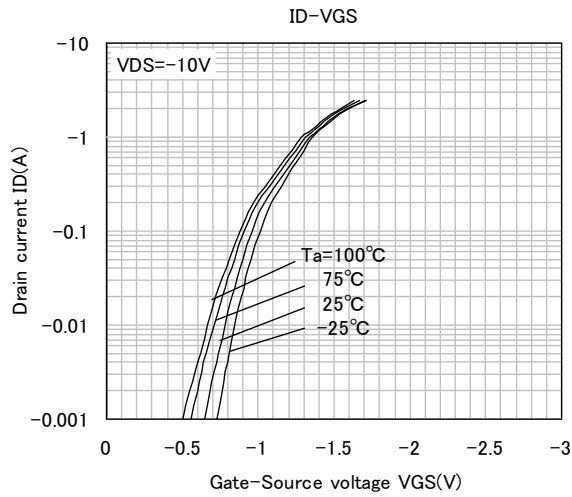
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Condition	Limit			Unit
			MIN	TYP	MAX	
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=-100 \mu\text{A}$, $V_{GS}=0\text{V}$	-20	-	-	V
Gate-Source Leak Current	I_{GSS}	$V_{GS}=\pm 10\text{V}$, $V_{DS}=0\text{V}$	-	-	± 10	μA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-20\text{V}$, $V_{GS}=0\text{V}$	-	-	-10	μA
Gate Threshold Voltage	V_{th}	$I_D=-250 \mu\text{A}$, $V_{DS}=V_{GS}$	-0.4	-	-1.2	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=-10\text{V}$, $I_D=-1\text{A}$	-	3.0	-	S
Static Drain-Source On-State Resistance	$R_{DS(ON)}$	$I_D=-1\text{A}$, $V_{GS}=-4.5\text{V}$	-	100	-	$\text{m}\Omega$
Input Capacitance	C_{iss}	$V_{DS}=-10\text{V}$, $V_{GS}=0\text{V}$, $f=1\text{MHz}$	-	340	-	pF
Output Capacitance	C_{oss}		-	90	-	
Switching Time	t_{on}	$V_{DD}=-15\text{V}$, $I_D=-1\text{A}$	-	230	-	ns
	t_{off}	$V_{GS}=0 \sim -10\text{V}$	-	940	-	

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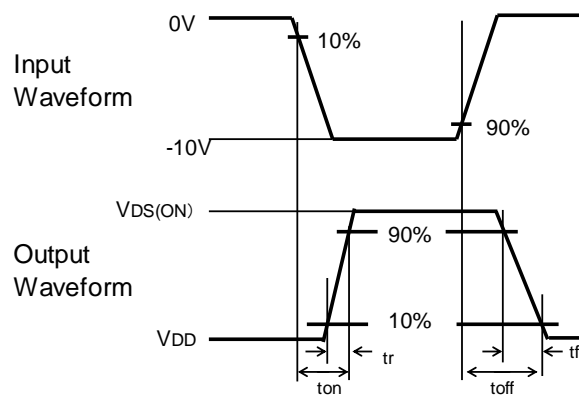
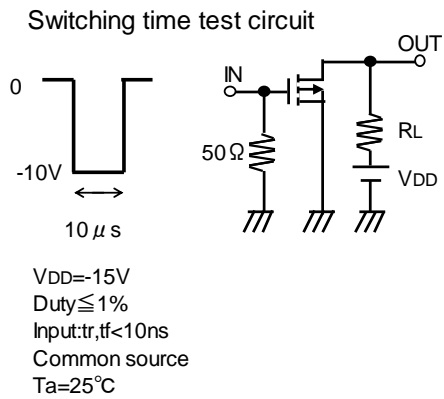
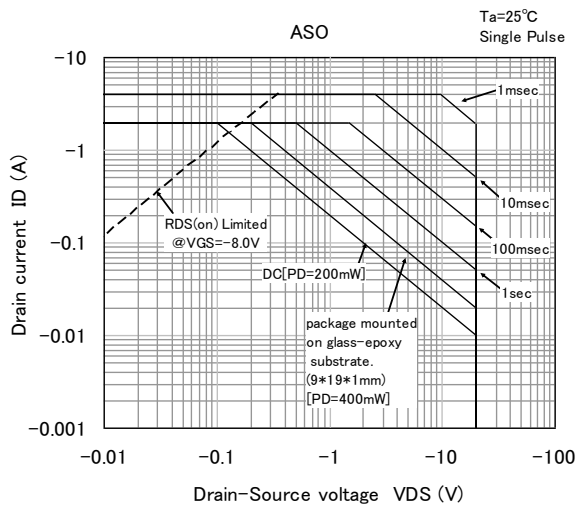
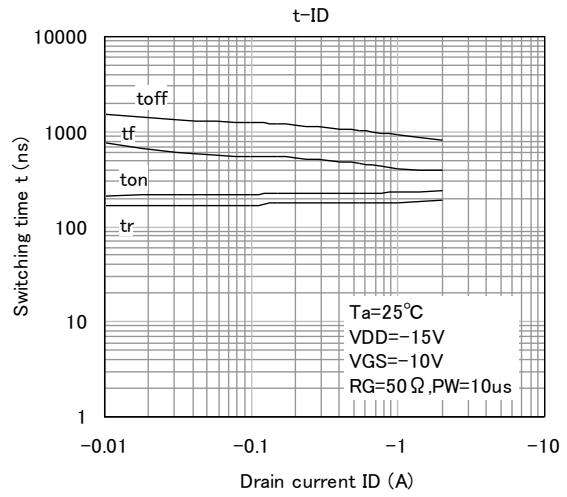
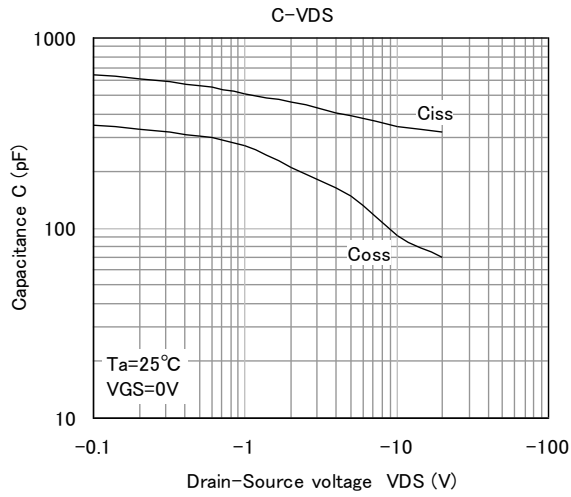
TYPICAL CHARACTERISTICS



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TYPICAL CHARACTERISTICS



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