INJ0203BC1-T150

High Speed Switching
Silicon P-channel MOSFET

AEC-Q101 Compliance

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

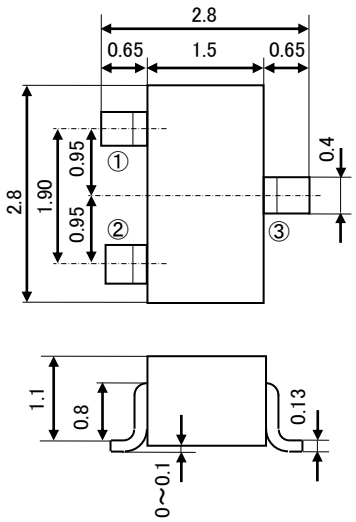
・Input impedance is high, and not necessary to consider a drive electric current.
・Drive voltage −2.5V
・Low on Resistance. $R_{DS(on)}$=100mΩ(TYP).
・Small package for easy mounting.

APPLICATION

Switching

OUTLINE DRAWING

Unit:mm



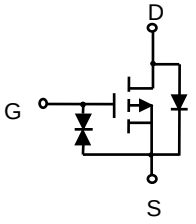
JEITA:SC-59
JEDEC:Similar to TO-236
TERMINAL CONNECTOR
①:GATE
②:SOURCE
③:DRAIN

MAXIMUM RATINGS(Ta=25℃)

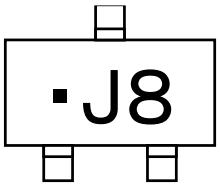
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	−20	V
Gate-Source Voltage	V_{GSS}	±10	V
Drain Current(DC)	I_D	−2	A
Drain Current(Pulse) ※1	I_{DP}	−4	A
Total Power Dissipation	P_D	200	mW
Channel Temperature	T_{ch}	+150	℃
Storage Temperature	T_{stg}	−55～+150	℃

※1:Pw≦10μs, Duty cycle≦1%

EQUIVALENT CIRCUIT



MARKING

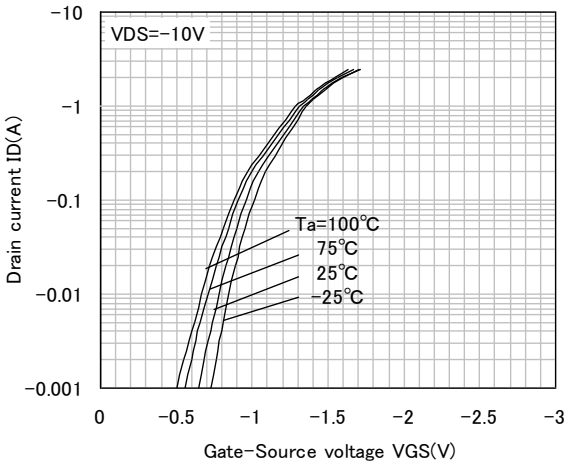


ELECTRICAL CHARACTERISTICS(Ta=25℃)

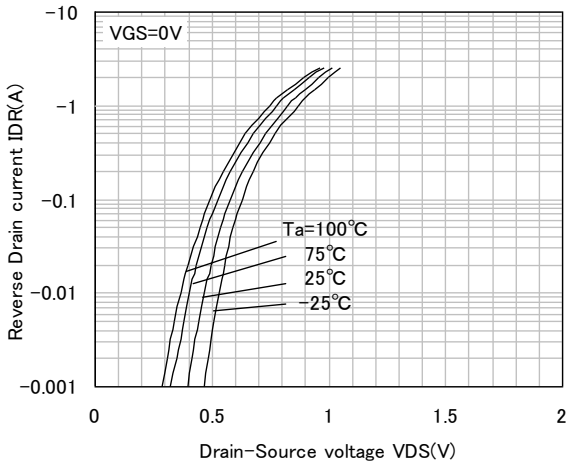
Parameter	Symbol	Test Condition	Limit			Unit
			MIN	TYP	MAX	
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=−100μA, V_{GS}=0V	−20	−	−	V
Gate-Source Leak Current	I_{GSS}	V_{GS}=±10V, V_{DS}=0V	−	−	±10	μA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=−20V ,V_{GS}=0V	−	−	−10	μA
Gate Threshold Voltage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

TYPICAL CHARACTERISTICS

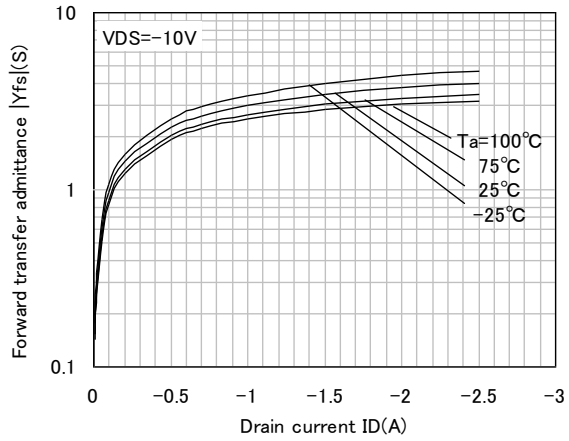
ID-VGS



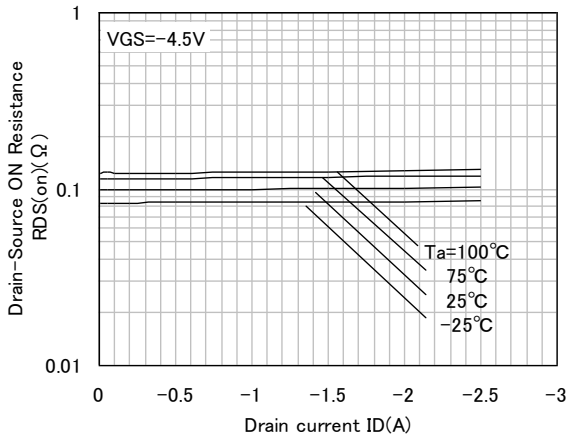
IDR-VDS



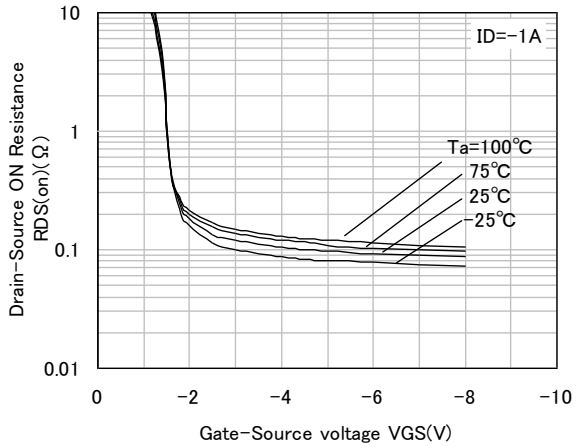
|Yfs|-ID



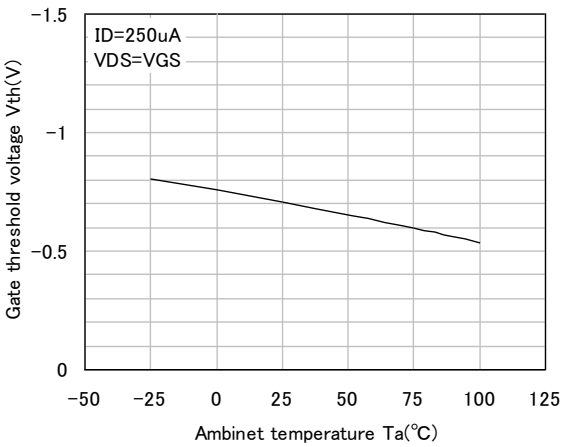
RDS(on)-ID



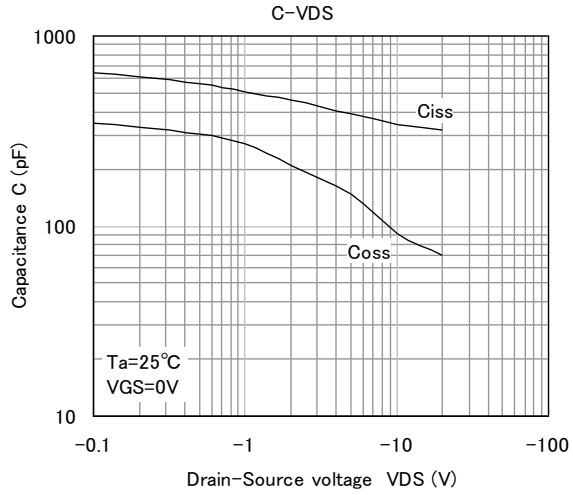
RDS(on)-VGS

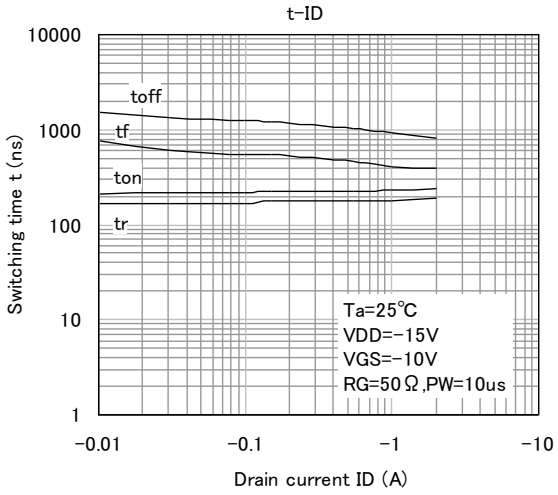


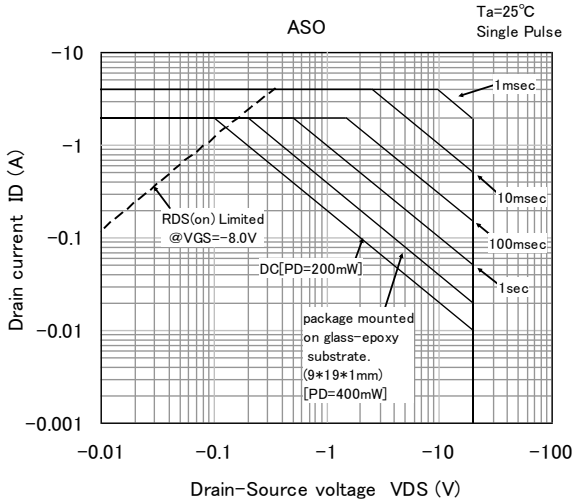
Vth-Ta



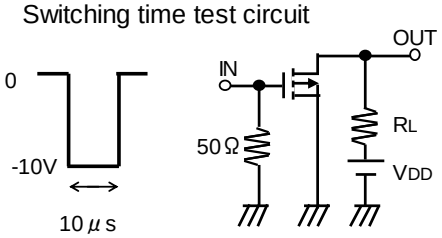
TYPICAL CHARACTERISTICS



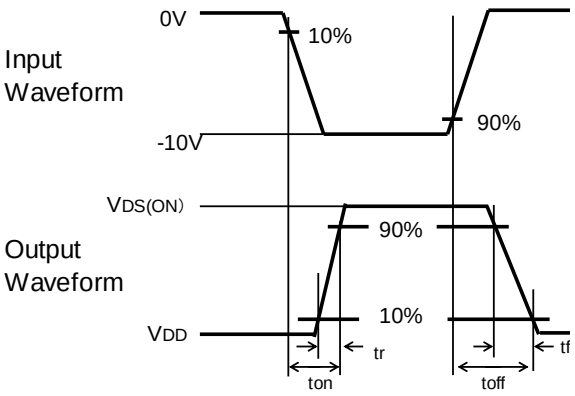




Switching time test circuit



VDD=-15V
Duty≦1%
Input:tr,tf<10ns
Common source
Ta=25℃



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