



2SJ486

Silicon P Channel MOS FET

REJ03G0869-0300
(Previous: ADE-208-512A)
Rev.3.00
Sep 07, 2005

Description

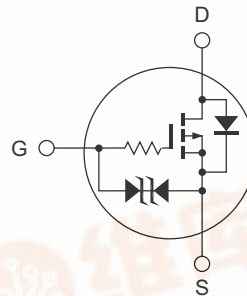
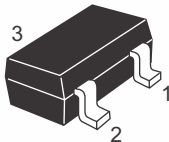
Low frequency power switching

Features

- Low on-resistance
 $R_{DS(on)} = 0.5 \Omega$ typ. (at $V_{GS} = -4 V$, $I_D = -100 mA$)
- 2.5 V gate drive devices.
- Small package (MPAK).

Outline

RENESAS Package code: PLSP0003ZB-A
(Package name: MPAK)



1. Source
2. Gate
3. Drain

Note: Marking is "ZU-".

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Drain to source voltage	V _{DSS}	-30	V
Gate to source voltage	V _{GSS}	±10	V
Drain current	I _D	-0.3	A
Drain peak current	I _{D (pulse)} ^{Note 1}	-0.6	A
Channel dissipation	P _{ch}	150	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Note: 1. PW ≤ 100 μs, duty cycle ≤ 10%

Electrical Characteristics

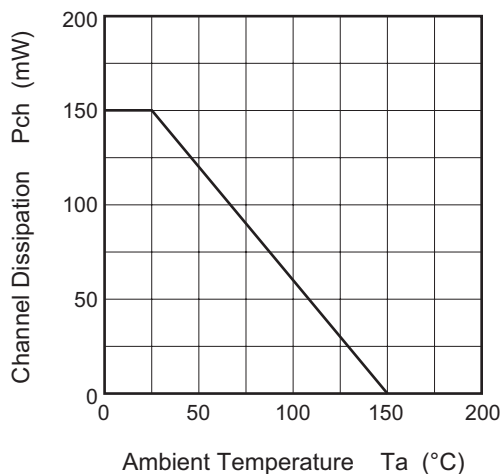
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	V _{(BR) DSS}	-30	—	—	V	I _D = -10 μA, V _{GS} = 0
Gate to source breakdown voltage	V _{(BR) GSS}	±10	—	—	V	I _G = ±100 μA, V _{DS} = 0
Zero gate voltage drain current	I _{DSS}	—	—	-1.0	μA	V _{DS} = -30 V, V _{GS} = 0
Gate to source leak current	I _{GSS}	—	—	±5.0	μA	V _{GS} = ±6.5 V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS (off)}	-0.5	—	-1.5	V	I _D = -10 μA, V _{DS} = -5 V
Static drain to source on state resistance	R _{DS (on)}	—	0.5	0.65	Ω	I _D = -100 mA, V _{GS} = -4 V ^{Note 2}
	R _{DS (on)}	—	0.7	1.2	Ω	I _D = -100 mA, V _{GS} = -2.5 V ^{Note 2}
Forward transfer admittance	y _{fs}	0.4	0.65	—	S	I _D = -100 mA, V _{DS} = -10 V ^{Note 2}
Input capacitance	C _{iss}	—	45	—	pF	V _{DS} = -10 V V _{GS} = 0 f = 1 MHz
Output capacitance	C _{oss}	—	76	—	pF	
Reverse transfer capacitance	C _{rss}	—	5.4	—	pF	
Turn-on delay time	t _{d (on)}	—	120	—	ns	V _{GS} = -4 V I _D = -150 mA R _L = 66.6 Ω
Rise time	t _r	—	340	—	ns	
Turn-off delay time	t _{d (off)}	—	850	—	ns	
Fall time	t _f	—	550	—	ns	

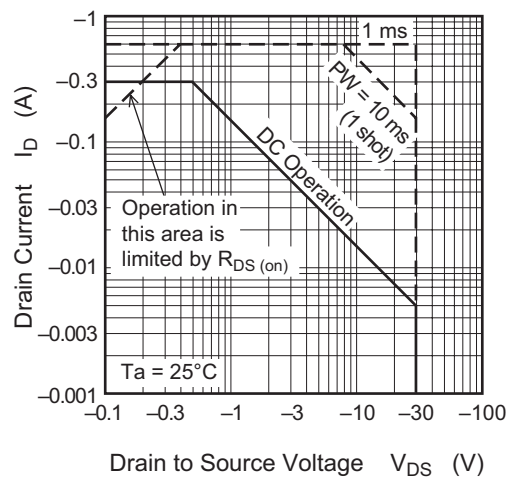
Note: 2. Pulse test

Main Characteristics

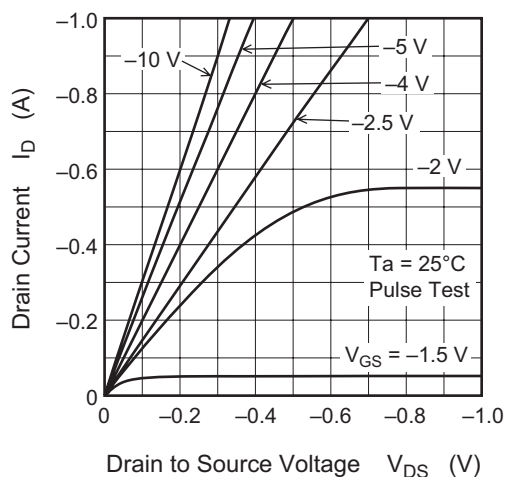
Power vs. Temperature Derating



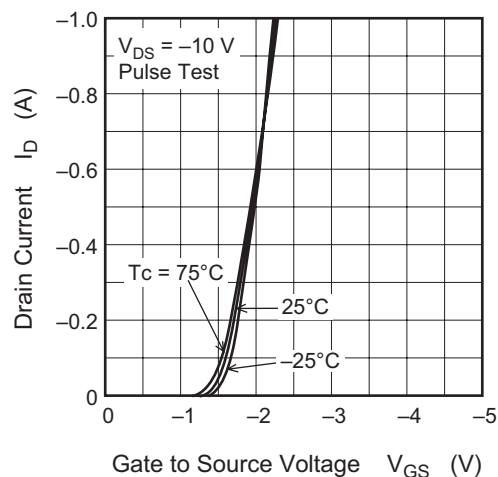
Maximum Safe Operation Area



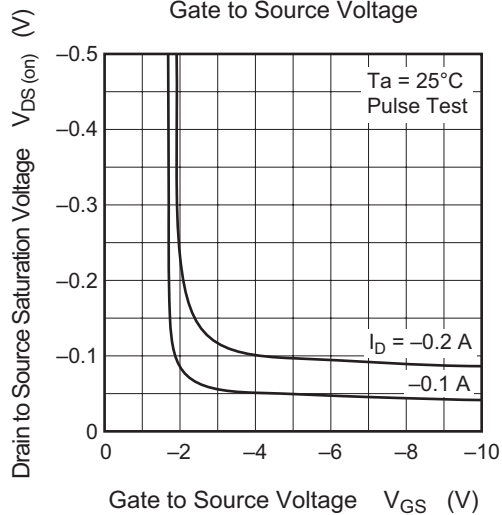
Typical Output Characteristics



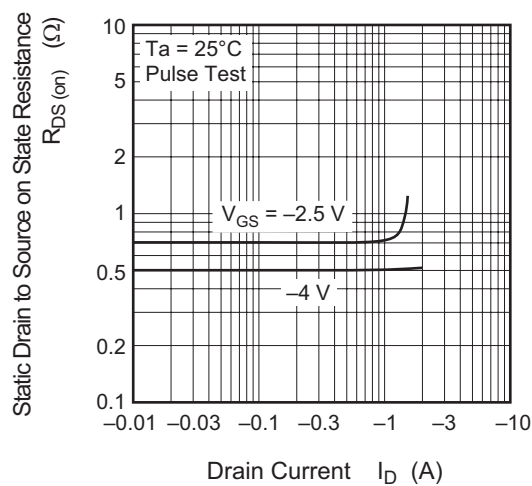
Typical Transfer Characteristics

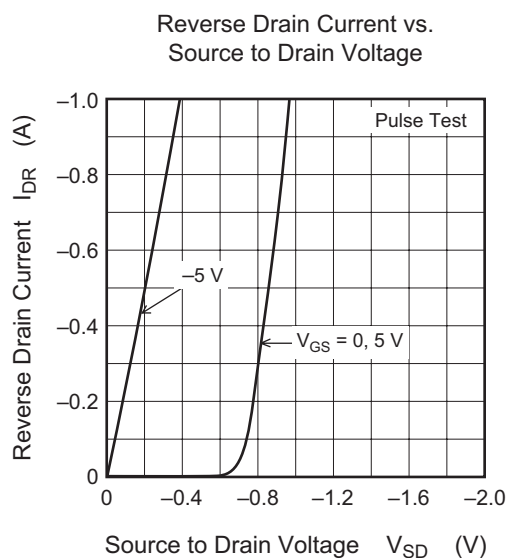
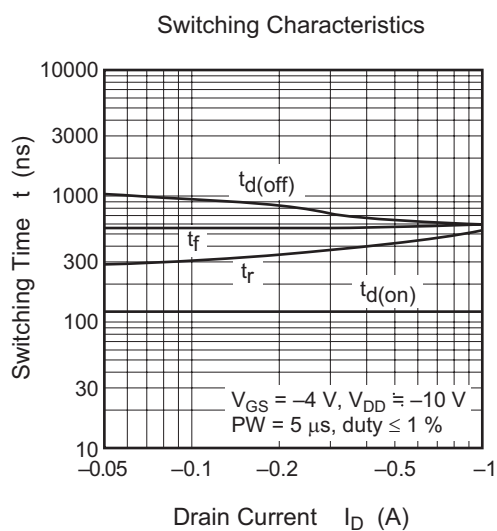
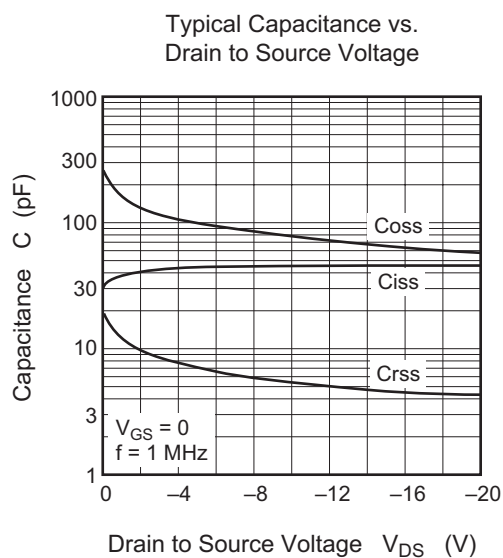
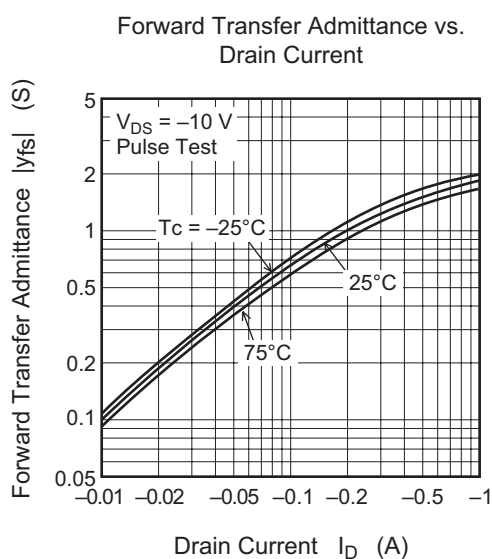
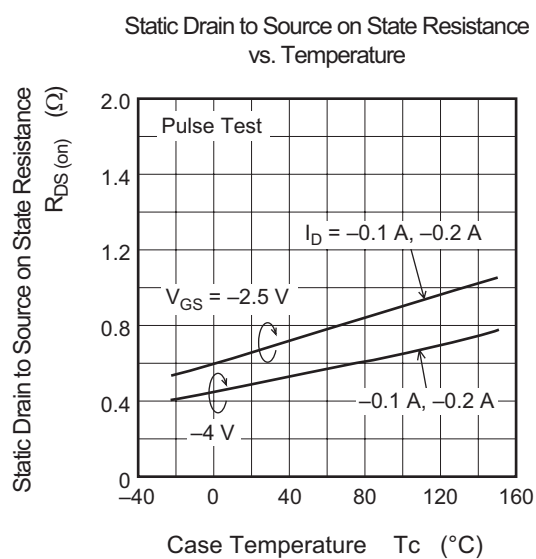


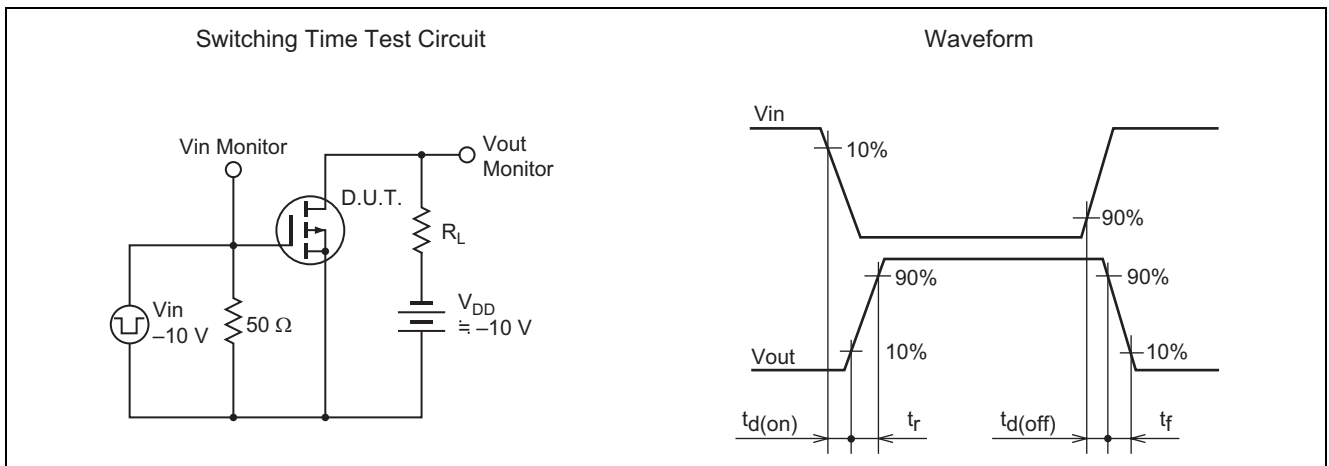
Drain to Source Saturation Voltage vs. Gate to Source Voltage



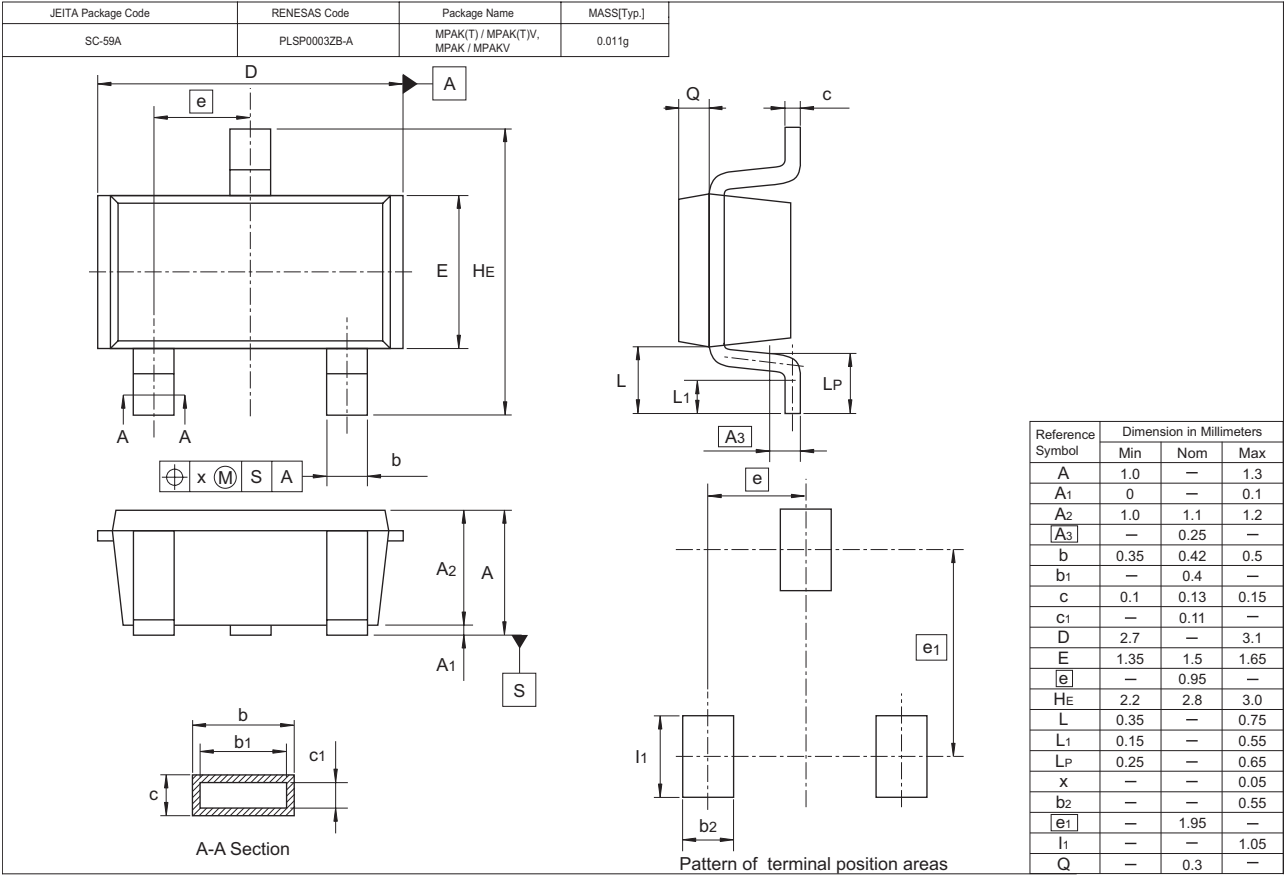
Static Drain to Source on State Resistance vs. Drain Current







Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SJ486ZU-TL-E	3000 pcs	Taping
2SJ486ZU-TR-E	3000 pcs	Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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