

To our customers,

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## Old Company Name in Catalogs and Other Documents

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April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

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## 2SK2926(L), 2SK2926(S)

Silicon N Channel MOS FET  
High Speed Power Switching

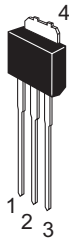
REJ03G1040-0200  
(Previous: ADE-208-535)  
Rev.2.00  
Sep 07, 2005

### Features

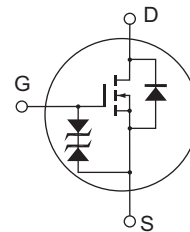
- Low on-resistance  
 $R_{DS(on)} = 0.042 \Omega$  typ.
- 4 V gate drive devices.
- High speed switching

### Outline

RENESAS Package code: PRSS0004ZD-B  
(Package name: DPAK(L)-(2))



RENESAS Package code: PRSS0004ZD-C  
(Package name: DPAK(S))



1. Gate
2. Drain
3. Source
4. Drain

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V <sub>DS</sub>	60	V
Gate to source voltage	V <sub>GSS</sub>	±20	V
Drain current	I <sub>D</sub>	15	A
Drain peak current	I <sub>D(pulse)</sub> *1	60	A
Body to drain diode reverse drain current	I <sub>DR</sub>	15	A
Avalanche current	I <sub>AP</sub> *3	15	A
Avalanche energy	E <sub>AR</sub> *3	19	mJ
Channel dissipation	P <sub>ch</sub> *2	25	W
Channel temperature	T <sub>ch</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

- Notes: 1. PW ≤ 10 μs, duty cycle ≤ 1 %  
 2. Value at Ta = 25°C  
 3. Value at Ta = 25°C, Rg ≥ 50 Ω

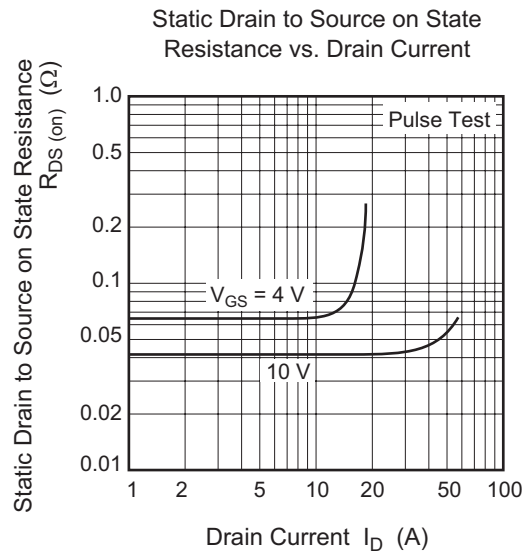
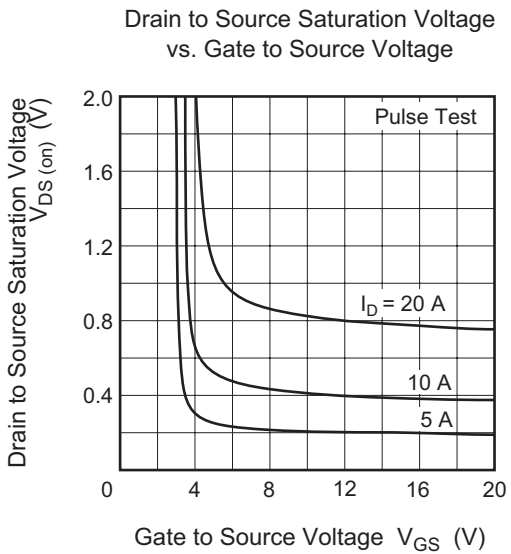
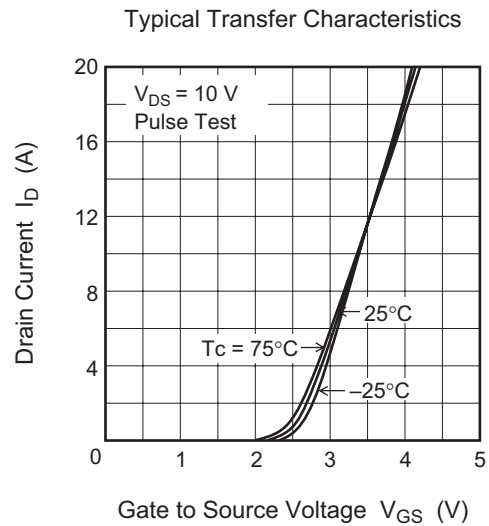
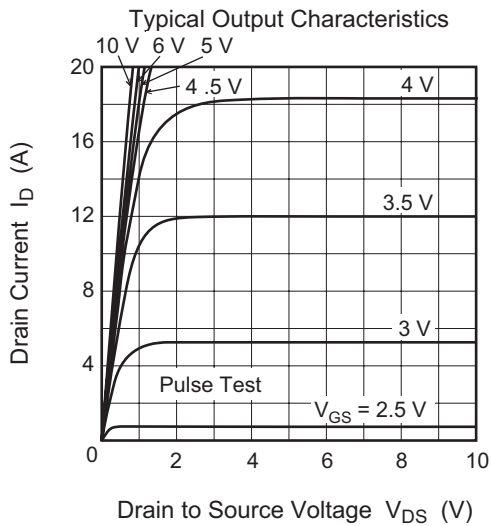
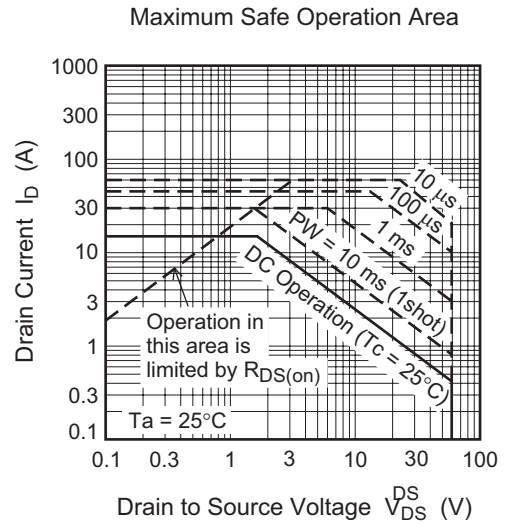
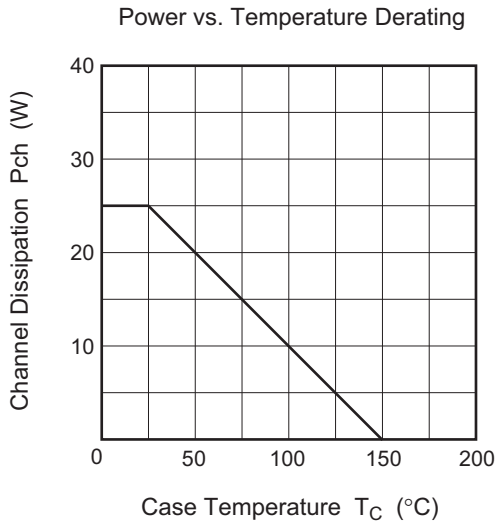
## Electrical Characteristics

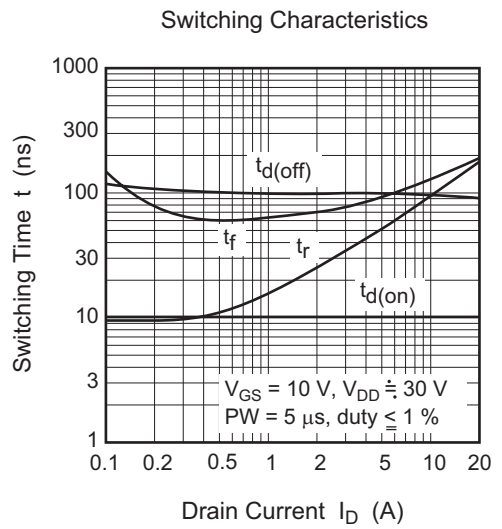
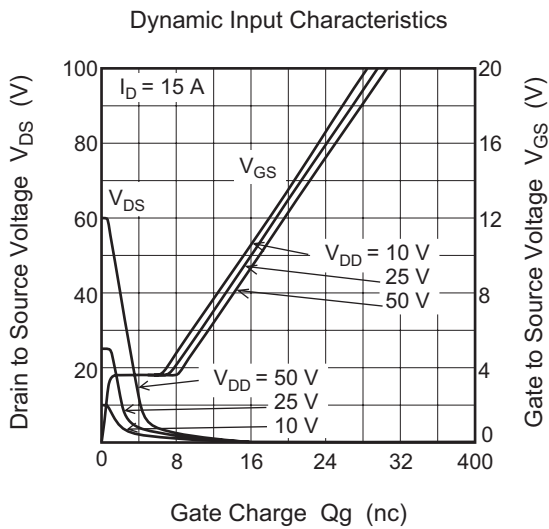
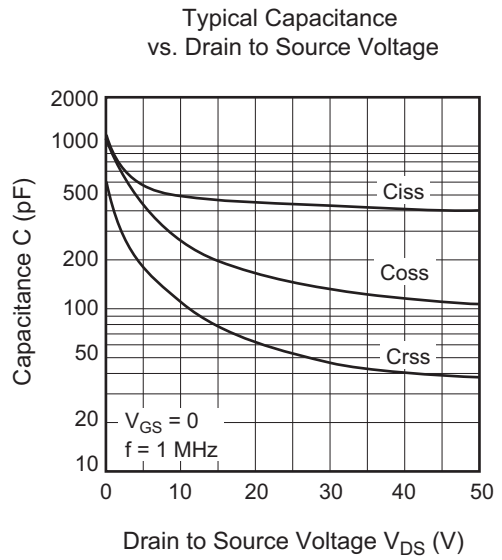
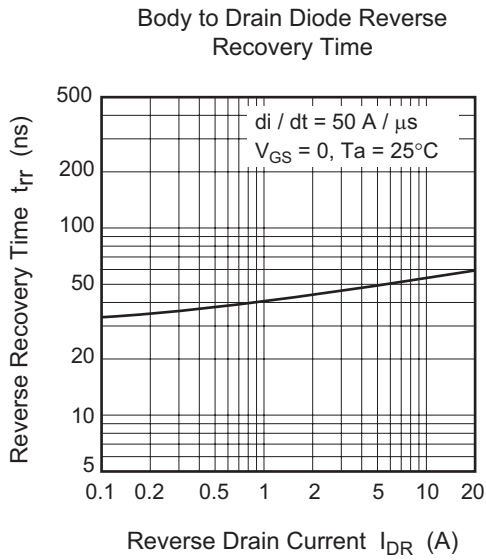
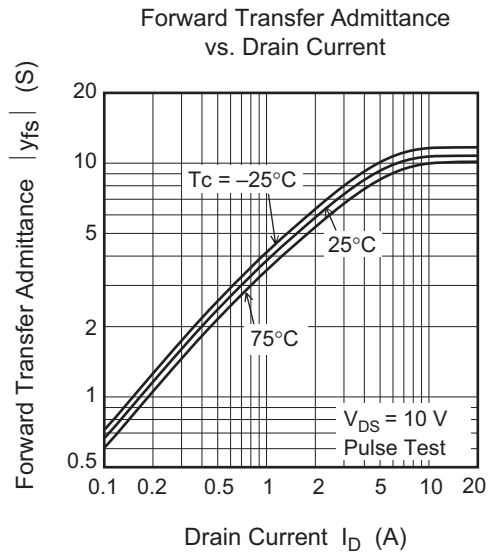
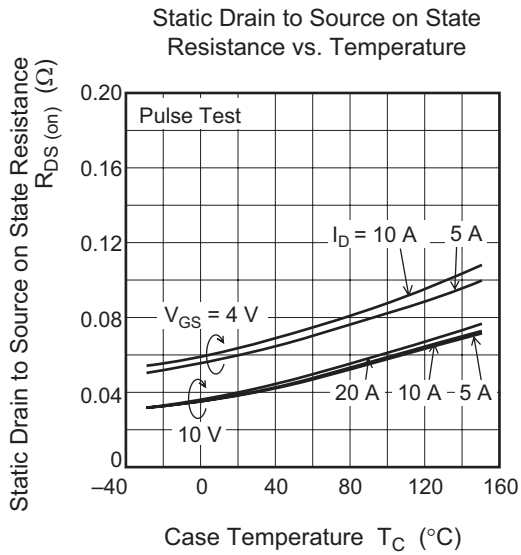
(Ta = 25°C)

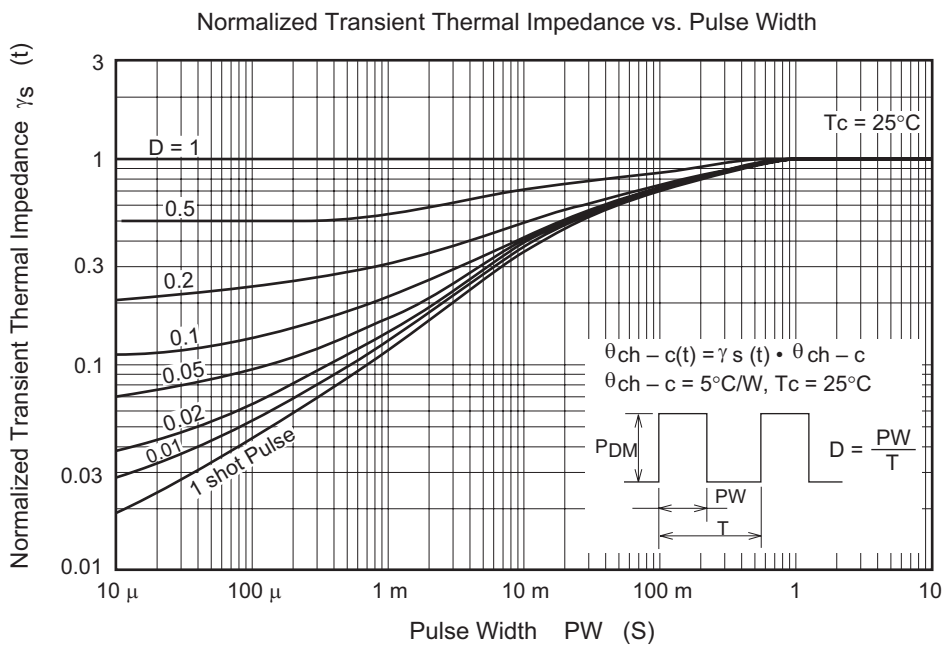
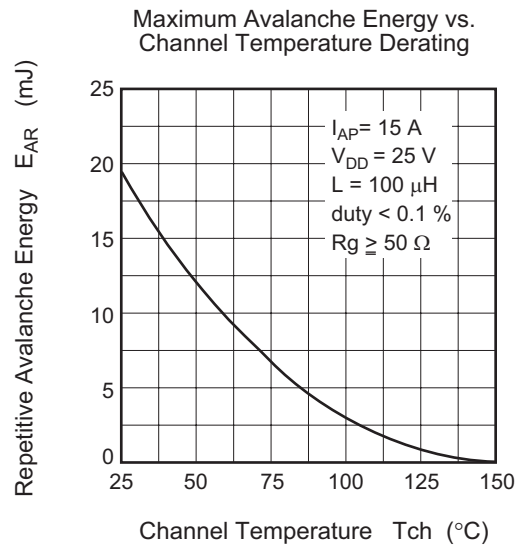
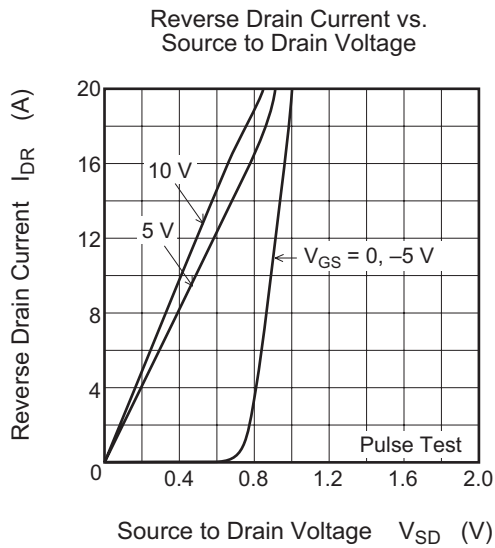
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	V <sub>(BR)DSS</sub>	60	—	—	V	I <sub>D</sub> = 10 mA, V <sub>GS</sub> = 0
Gate to source breakdown voltage	V <sub>(BR)GSS</sub>	±20	—	—	V	I <sub>G</sub> = ±100 μA, V <sub>DS</sub> = 0
Zero gate voltage drain current	I <sub>DSS</sub>	—	—	10	μA	V <sub>DS</sub> = 60 V, V <sub>GS</sub> = 0
Gate to source leak current	I <sub>GSS</sub>	—	—	±10	μA	V <sub>GS</sub> = ±16 V, V <sub>DS</sub> = 0
Gate to source cutoff voltage	V <sub>GS(off)</sub>	1.5	—	2.5	V	I <sub>D</sub> = 1 mA, V <sub>DS</sub> = 10 V
Static drain to source on state resistance	R <sub>DS(on)</sub>	—	0.042	0.055	Ω	I <sub>D</sub> = 8 A, V <sub>GS</sub> = 10 V*4
	R <sub>DS(on)</sub>	—	0.065	0.11	Ω	I <sub>D</sub> = 8 A, V <sub>GS</sub> = 4 V*4
Forward transfer admittance	y <sub>fs</sub>	7	11	—	S	I <sub>D</sub> = 8 A, V <sub>DS</sub> = 10 V*4
Input capacitance	C <sub>iss</sub>	—	500	—	pF	V <sub>DS</sub> = 10 V, V <sub>GS</sub> = 0, f = 1 MHz
Output capacitance	C <sub>oss</sub>	—	260	—	pF	
Reverse transfer capacitance	C <sub>rss</sub>	—	110	—	pF	
Turn-on delay time	t <sub>d(on)</sub>	—	10	—	ns	V <sub>GS</sub> = 10 V, I <sub>D</sub> = 8 A, R <sub>L</sub> = 3.75 Ω
Rise time	t <sub>r</sub>	—	80	—	ns	
Turn-off delay time	t <sub>d(off)</sub>	—	100	—	ns	
Fall time	t <sub>f</sub>	—	110	—	ns	
Body to drain diode forward voltage	V <sub>DF</sub>	—	1.0	—	V	I <sub>F</sub> = 15 A, V <sub>GS</sub> = 0
Body to drain diode reverse recovery time	t <sub>rr</sub>	—	55	—	ns	I <sub>F</sub> = 15 A, V <sub>GS</sub> = 0, di <sub>F</sub> /dt = 50 A/μs

- Note: 4. Pulse test

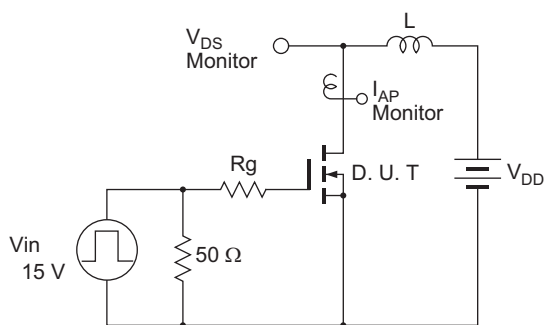
### Main Characteristics



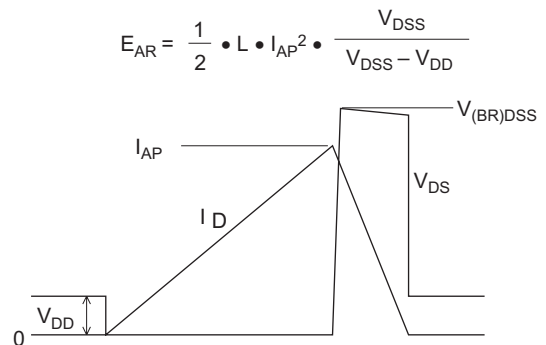


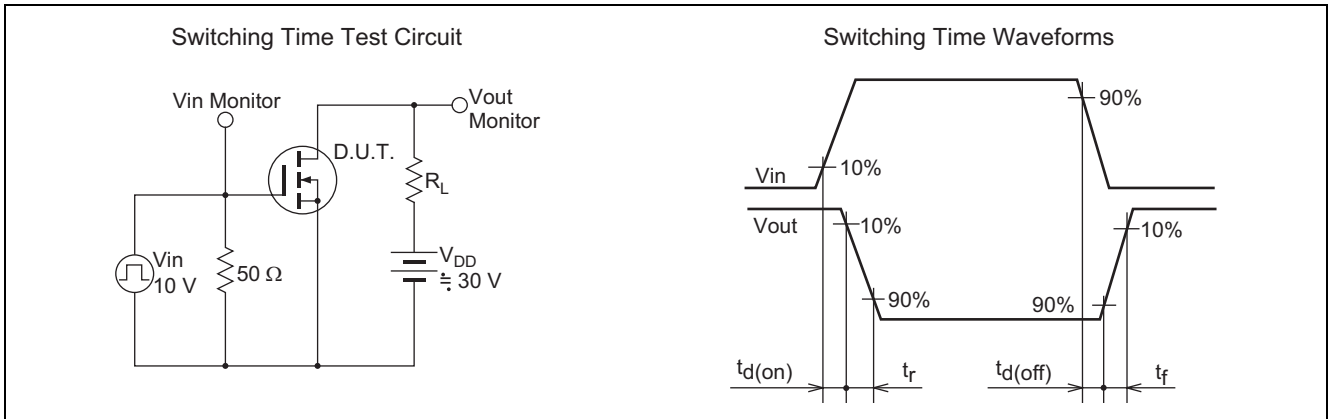


Avalanche Test Circuit



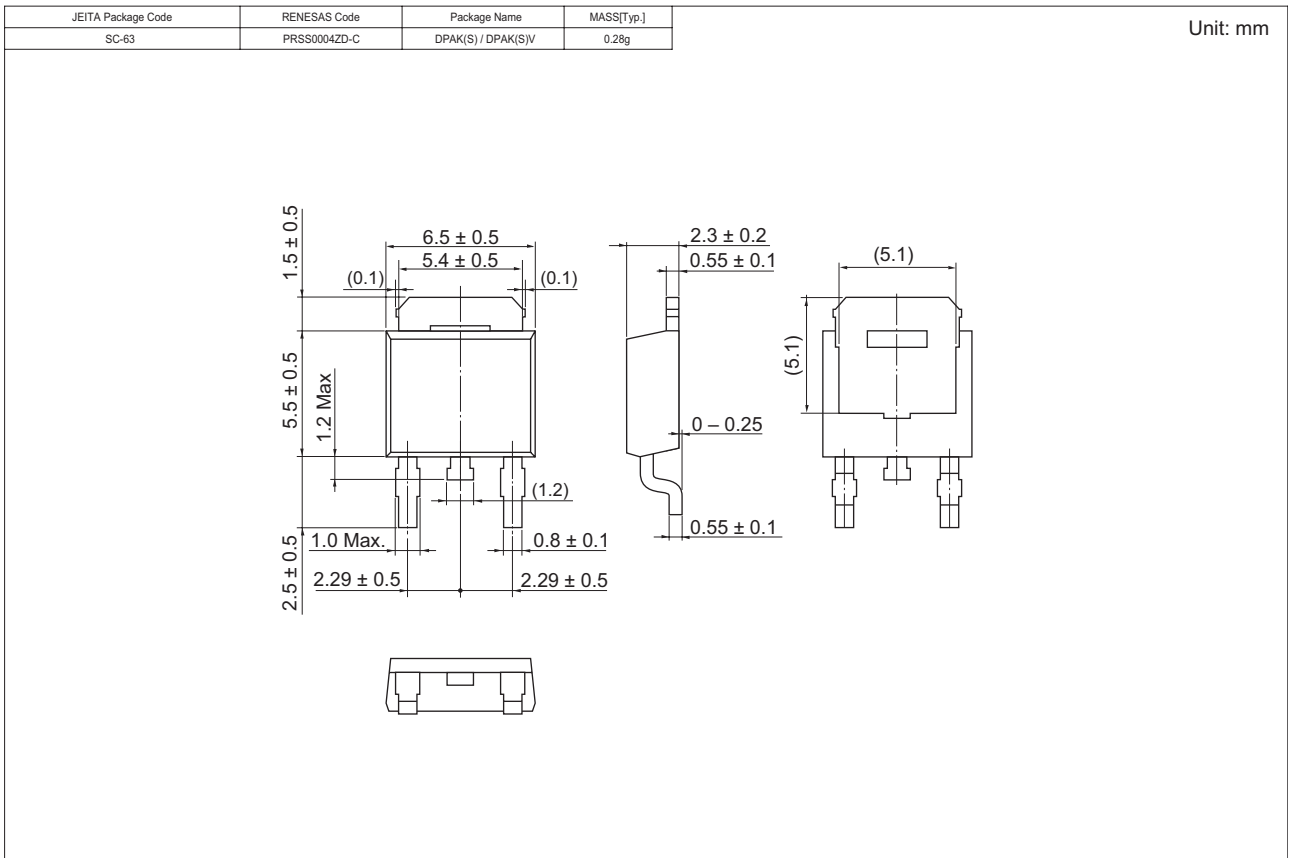
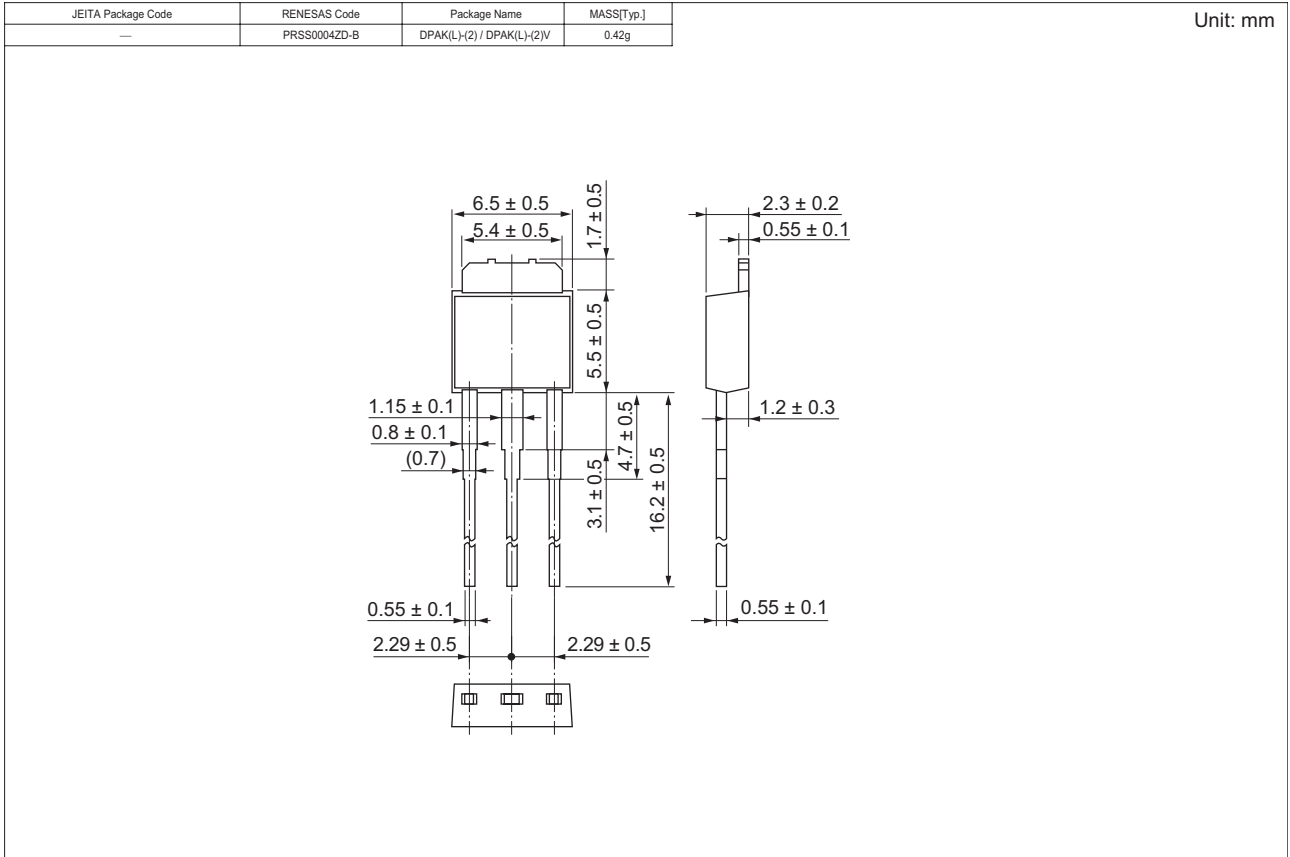
Avalanche Waveform







Package Dimensions



### Ordering Information

Part Name	Quantity	Shipping Container
2SK2926L-E	3200 pcs	Box (Sack)
2SK2926STL-E	3000 pcs	Taping

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