



SSC8132GN1

N-Channel Enhancement Mode MOSFET with ESD protection

➤ Features

V_{DS}	V_{GS}	$R_{DS(ON)}$ Typ.	I_D	ESD
30V	$\pm 20V$	560m Ω @5V0	0.5A	1K
		720m Ω @2V75		

➤ Description

This device is a N-Channel enhancement mode MOSFET which is produced with high cell density and DMOS trench technology. This device particularly suits low voltage applications, especially for battery powered circuits, the tiny and thin outline saves PCB consumption.

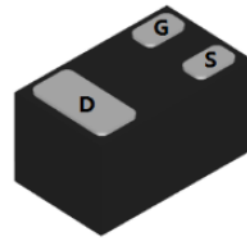
➤ Applications

- Load Switch
- Portable Devices

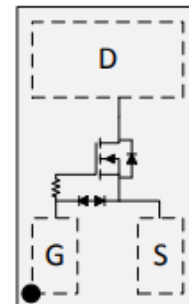
➤ Ordering Information

Device	Package	Shipping
SSC8132GN1	DFN1006-3L	10000/Reel

➤ Pin configuration



DFN1006-3L (Bottom View)



Pin Configuration (Top View)



Marking



➤ **Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)**

Parameter	Symbol	Value	Unit
Drain-to-Source Voltage	V_{DSS}	30	V
Gate-to-Source Voltage	V_{GSS}	± 20	V
Continuous Drain Current ^a	I_{D}	0.5	A
Pulsed Drain Current ^b	I_{DM}	3	A
Power Dissipation ^c	P_{D}	0.8	W
Operation junction temperature, Storage temperature range	$T_{\text{J}}, T_{\text{STG}}$	-55 to 150	$^{\circ}\text{C}$

➤ **Thermal Resistance Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)**

Symbol	Parameter	Ratings	Unit
$R_{\theta\text{JA}}$	Junction-to-Ambient Thermal Resistance ^a	160	$^{\circ}\text{C}/\text{W}$

Note:

- The value of $R_{\theta\text{JA}}$ is measured with the device mounted on 1 in² FR-4 board with 2oz.copper, in a still air environment with $T_A=25^{\circ}\text{C}$. The value in any given application depends on the user's specific board design. The current rating is based on the $t \leq 10\text{s}$ thermal resistance rating.
- Repetitive rating, pulse width limited by junction temperature.
- The power dissipation P_{D} is based on $T_{\text{J}(\text{MAX})}=150^{\circ}\text{C}$, using junction-to-case thermal resistance, and is more useful in setting the upper dissipation limit for cases where additional heat sinking is used.

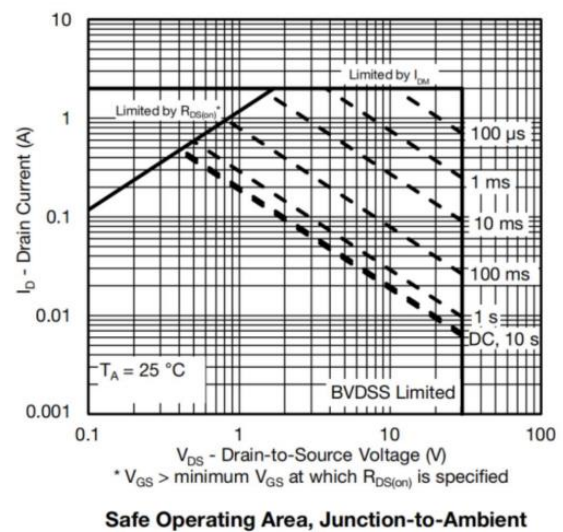
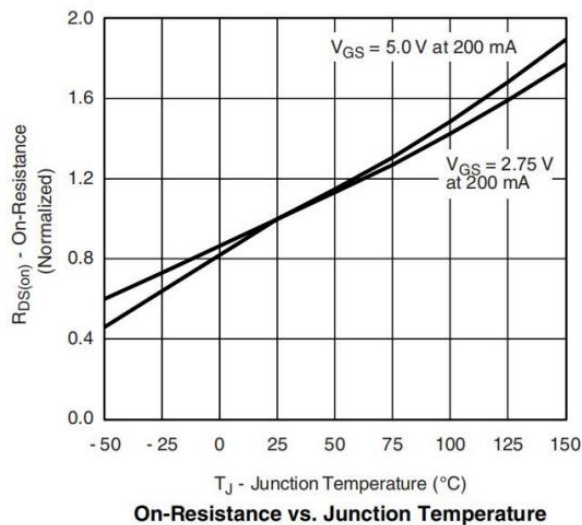
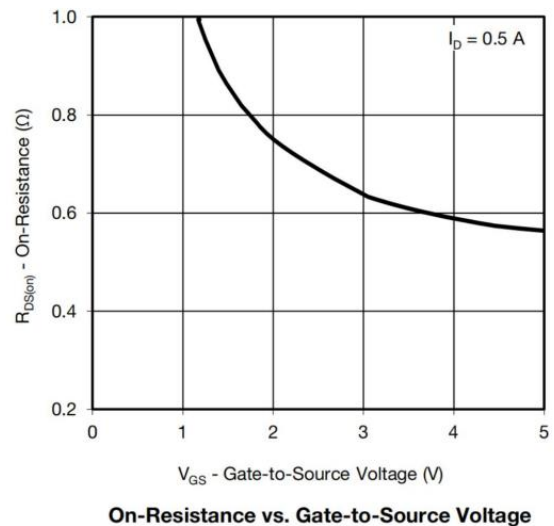
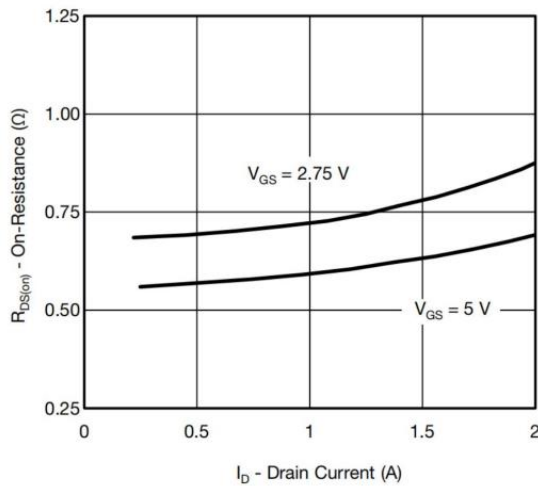
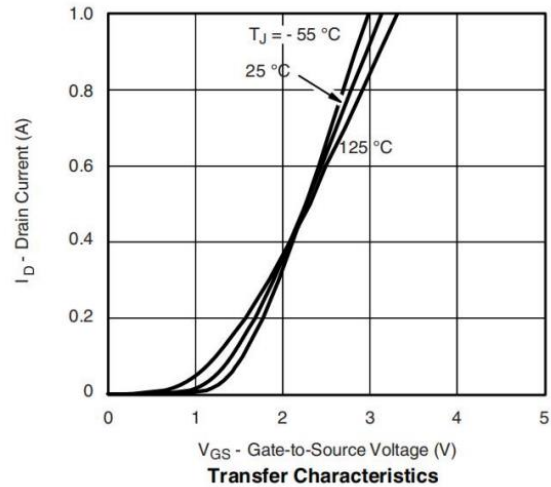
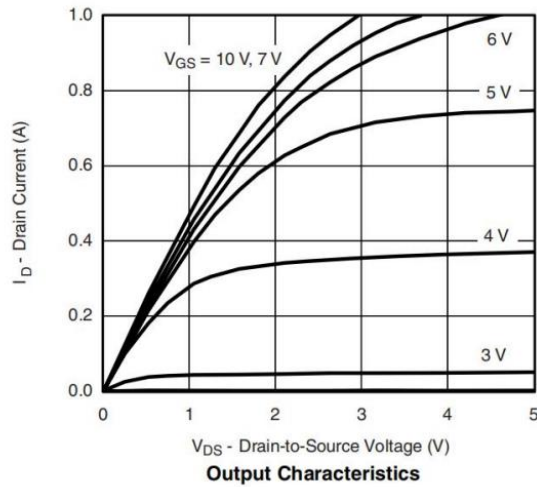


➤ **Electrical Characteristics (T_A=25°C unless otherwise noted)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	30			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250uA	0.5	1	1.5	V
Drain-Source On-Resistance	R _{DS(on)}	V _{GS} = 5V, I _D = 0.5A		560	730	mΩ
		V _{GS} = 2.75V, I _D = 0.3A		720	950	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 30V, V _{GS} = 0V			1	μA
Gate-Source Leak Current	I _{GSS}	V _{GS} = ±20V, V _{DS} = 0V			±10	μA
Transconductance	G _{FS}	V _{DS} = 25V, I _D = 0.2A	100			ms
Forward Voltage	V _{SD}	V _{GS} = 0V, I _S = 0.2A		0.8	1.4	V
Input Capacitance	C _{ISS}	V _{DS} = 15V, V _{GS} = 0V, f = 1MHz		45		pF
Output Capacitance	C _{OSS}			12		
Reverse Transfer Capacitance	C _{RSS}			4.5		
Total Gate Charge	Q _G	V _{DS} = 20V, V _{GS} = 5V, I _D = 0.2A		0.8		nC
Gate Source Charge	Q _{GS}			0.1		
Gate Drain Charge	Q _{GD}			0.53		
Turn-on Delay Time	T _{D(ON)}	V _{GS} = 5V, V _{DS} = 30V, R _G = 3Ω, I _D = 0.2A		20		ns
Turn-off Delay Time	T _{D(OFF)}			20		

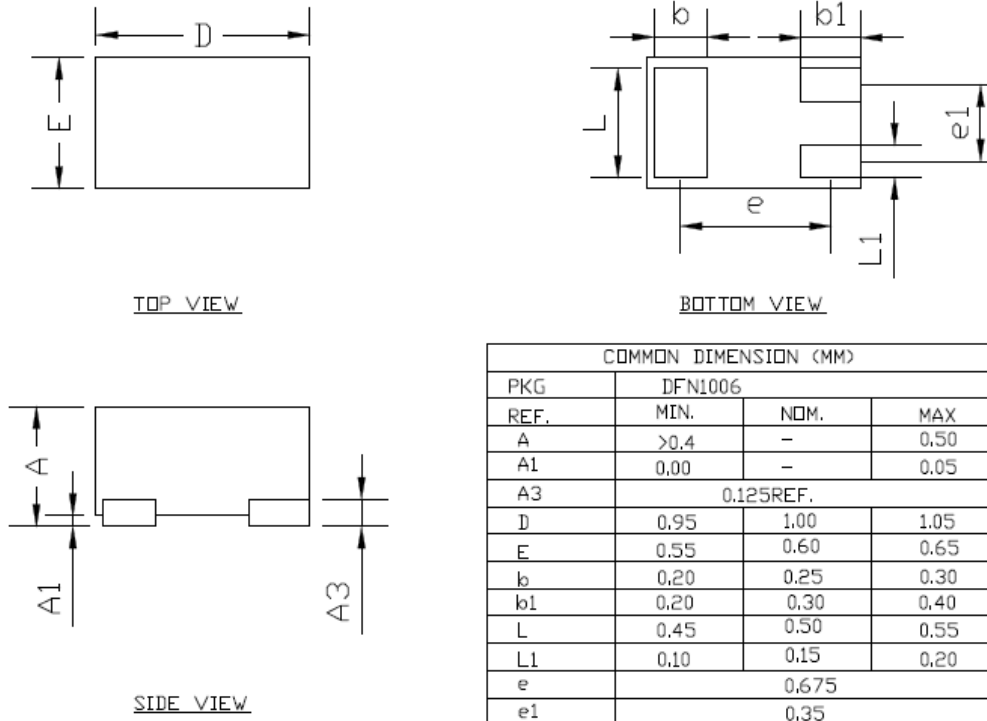


➤ Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

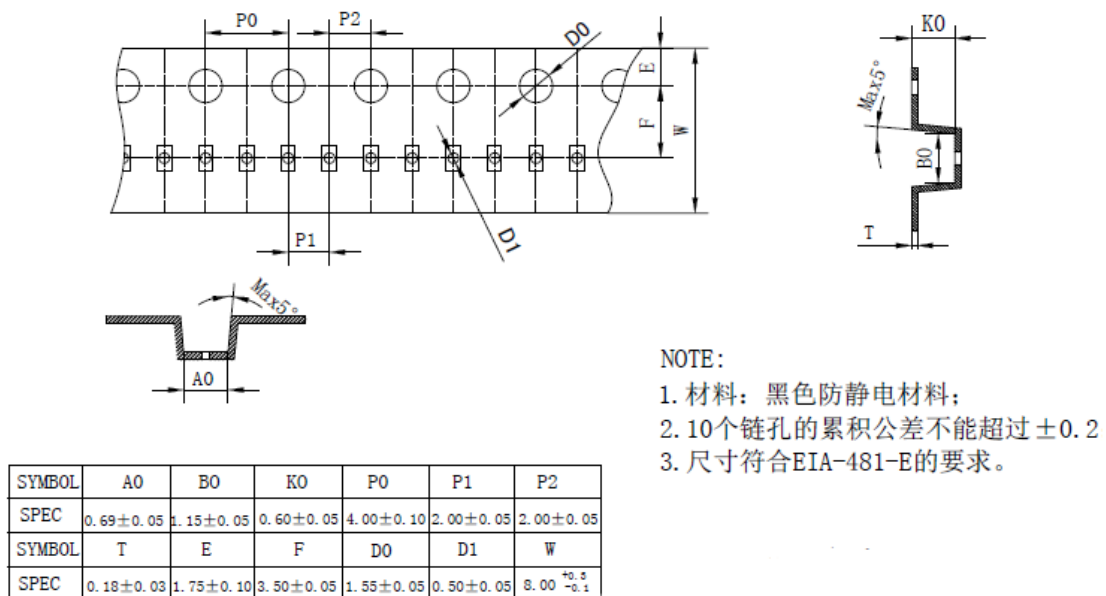


➤ Package Information

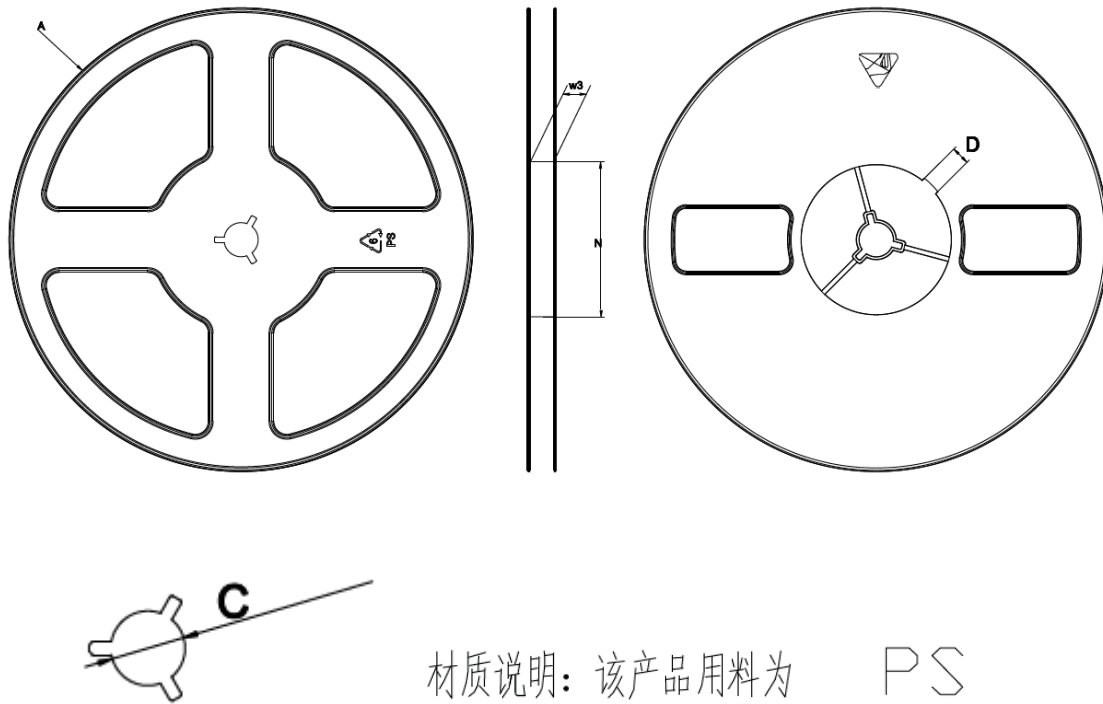
● POD



● Tape Data



● Reel Data



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PS

TYPE	A	N	C	D	w3
8MM	$\begin{matrix} +1 \\ \text{Ø178} \\ -1 \end{matrix}$	$\begin{matrix} +1 \\ \text{Ø60} \\ -1 \end{matrix}$	$\begin{matrix} +0,3 \\ \text{Ø13,3} \\ -0,3 \end{matrix}$	$7,5 \pm 0,5$	$9 \pm 0,3$



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