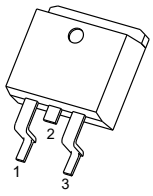
SZCJ Shenzhen Changji Semiconductor Co., LTD.

TO-263-2L Plastic-Encapsulate MOSFETS

CJB110SN10 N-Channel Power MOSFET

$V_{(BR)DSS}$	$R_{DS(on)}$TYP	I_D
100V	8.5mΩ@10V	110A
	9.5mΩ@4.5V	

TO-263-2L



1. GATE
2. DRAIN
3. SOURCE

DESCRIPTION

The CJB110SN10 uses shielded gate trench technology and design to provide excellent $R_{DS(ON)}$ with low gate charge. It can be used in a wide variety of applications

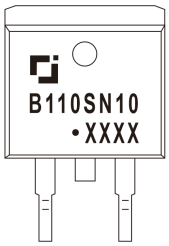
FEATURES

- Low $R_{DS(on)}$
- Low Gate Charge

APPLICATIONS

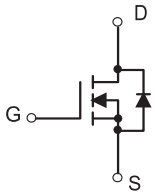
- High efficiency power supply
- Secondary synchronus rectifier

MARKING



B110SN10= Device code
Solid dot = Green molding compound device, if none, the normal device
XXXX=Code

EQUIVALENT CIRCUIT



ABSOLUTE MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	±20	
Continuous Drain Current	I_D	110	A
Pulsed Drain Current(1)	I_{DM}	330	
Maximum Power Dissipation(4)	P_D	192	W
Avalanche energy*	E_{AS}	80	mJ
Thermal Resistance from Junction to Case	$R_{\theta JC}$	0.65	℃/W
Thermal Resistance from Junction to Ambient(3)	$R_{\theta JA}$	62	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	

* EAS test condition V_{DD}=50V, RG=25 Ω, L=0.5 mH, starting Tj=25 ℃.

MOSFET ELECTRICAL CHARACTERISTICS

T_a=25℃ unless otherwise specified

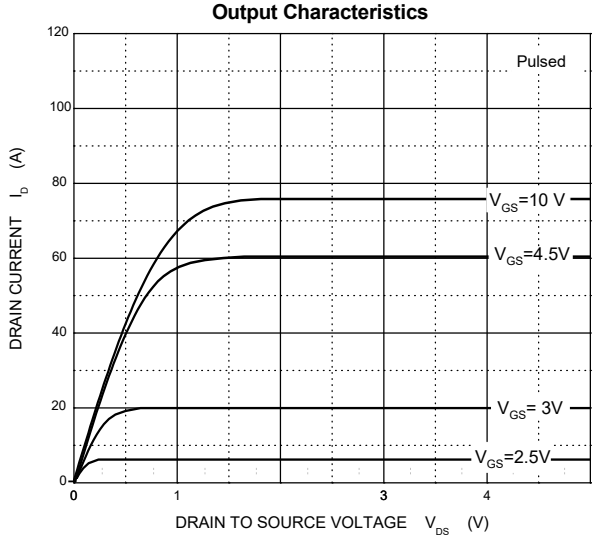
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Static Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	V_{GS} = 0V, I_D =250μA	100			V
Zero gate voltage drain current	I_{DSS}	V_{DS} =100V,V_{GS} = 0V			1	μA
Gate-body leakage current	I_{GSS}	V_{GS} =±20V, V_{DS} = 0V			±100	nA
Gate threshold voltage(1)	$V_{GS(th)}$	V_{DS} =V_{GS}, I_D =250μA	1.0	1.8	2.5	V
Drain-source on-resistance(1)	$R_{DS(on)}$	V_{GS} =10V, I_D =10A		8.5	10	mΩ
		V_{GS} =4.5V, I_D =10A		9.5	14	
Forward tranconductance(1)	g_{FS}	V_{DS} =5.0V, I_D =20A		51		S
Dynamic characteristics(2)						
Total gate charge	Q_g	V_{DS} =50V,V_{GS} =10V,I_D =25A		46.5		nC
Gate-source charge	Q_{gs}			5.7		
Gate-drain charge	Q_{gd}			10.9		
Input Capacitance	C_{iss}	V_{DS} =50V,V_{GS} =0V,f =100kHz		3050		pF
Output Capacitance	C_{oss}			323		
Reverse Transfer Capacitance	C_{rss}			10.2		
SWITCHING PARAMETERS(2)						
Turn-on delay time	$t_{d(on)}$	V_{GS}=10V, V_{DS}=50V, R_G=2.2Ω, I_D=25A		18.5		ns
Turn-on rise time	t_r			4.7		
Turn-off delay time	$t_{d(off)}$			50.3		
Turn-off fall time	t_f			8.8		
Source-Drain Diode characteristics(1)						
Body diode voltage	V_{SD}	I_S=20A,V_{GS}=0V			1.3	V

Notes:

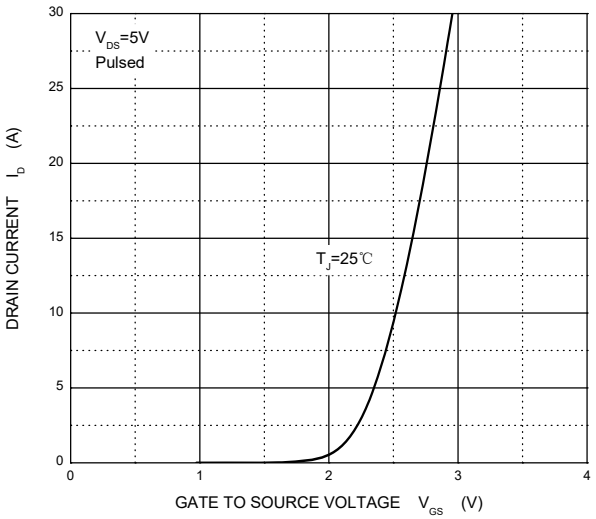
1. Pulse Test : Pulse width≤300μs, duty cycle≤0.5%.
2. Guaranteed by design, not subject to production testing.
3. The value of $R_{\theta JA}$ is measured with the device mounted on 1 in 2 FR-4 board with 2oz. Copper, in a still air environment with T_a=25 ℃.

Typical Characteristics

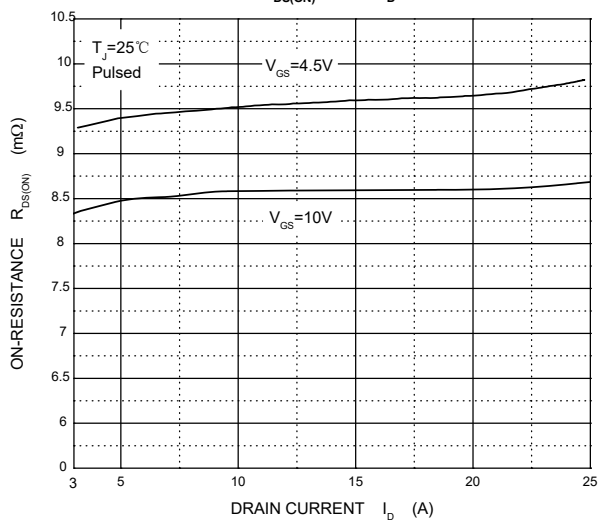
Output Characteristics



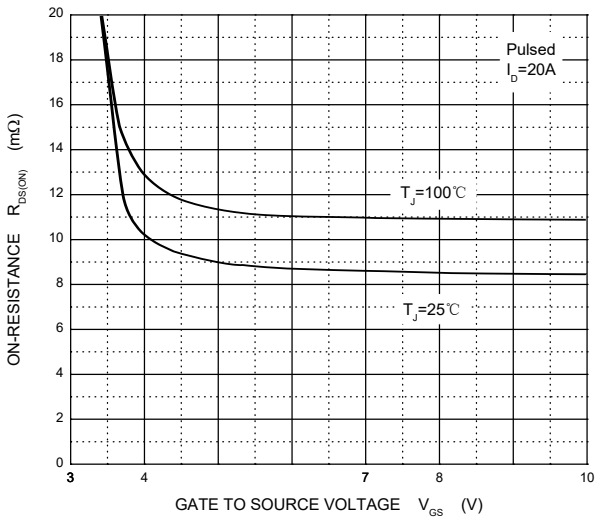
Transfer Characteristics



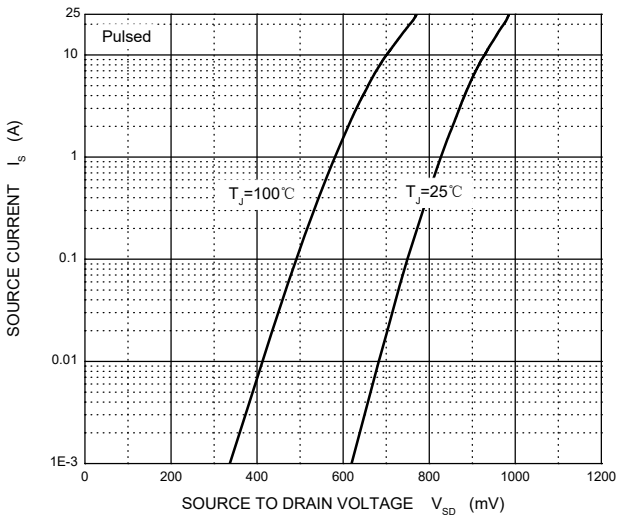
$R_{DS(ON)}$ —— I_D



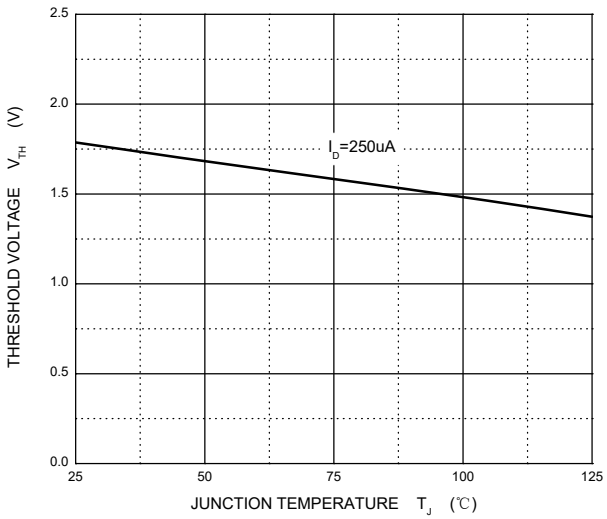
$R_{DS(ON)}$ —— V_{GS}



I_S —— V_{SD}



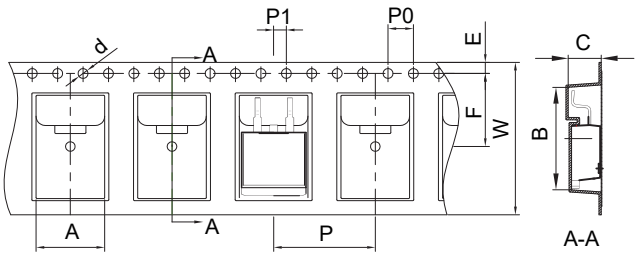
Threshold Voltage



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TO-263-2L Tape and Reel

TO-263-2L Embossed Carrier Tabe

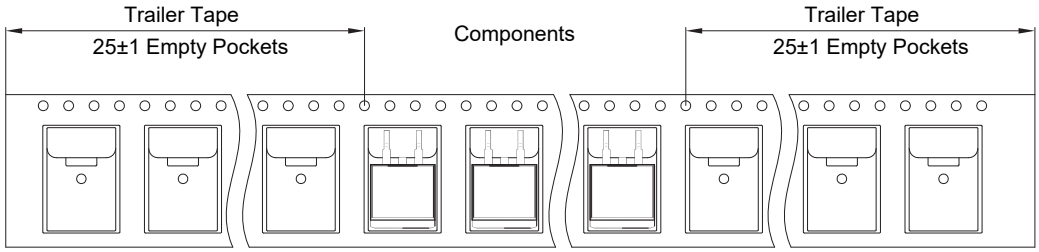


Packaging Description:

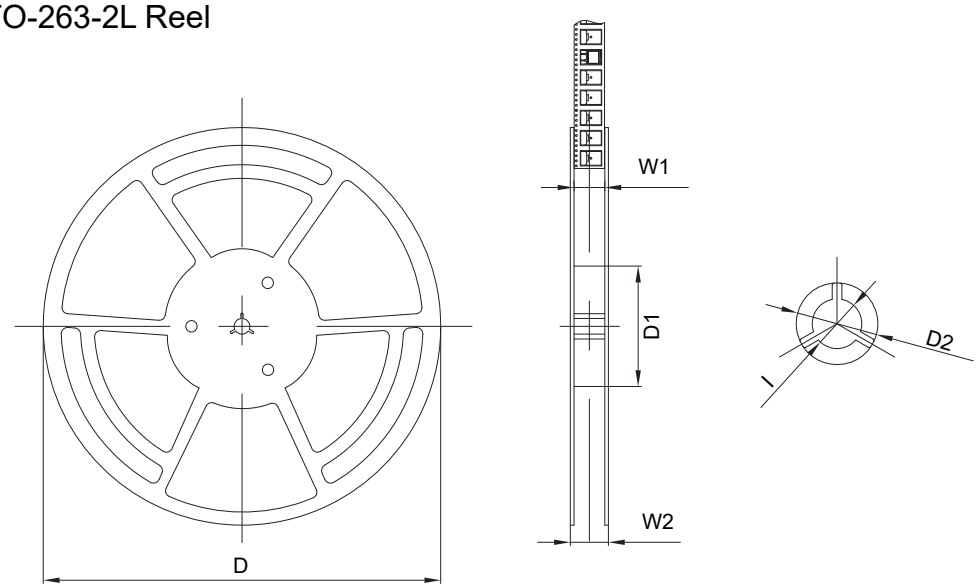
TO-263-2L parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Hear Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 800 units per 13″ or 33.0 cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
TO-263	10.80	16.13	5.21	Φ1.55	1.75	11.50	4.00	16.00	2.00	24.00

TO-263-2L Tape Leader and Trailer



TO-263-2L Reel



Dimensions are in millimeter						
Reel	D	D1	D2	W1	W2	I
13" Dia	330.00	100.00	Φ21.00	24.40	30.40	Φ13.00

Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
800 pcs	13 inch	1600 pcs	360×360×65	8000 pcs	378×358×382