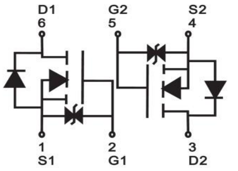
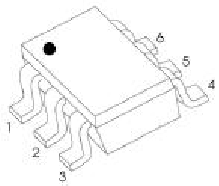
MT3134KDW 20V N-Channel MOSFET



Feature

- $R_{DS(ON)}$ =270mΩ(typ.) @ V_{GS}= 4.5V
- $R_{DS(ON)}$ =350mΩ(typ.) @ V_{GS}= 2.5V
- Reliable and Rugged
- ESD Protected



SOT-363

Applications

Portable Equipment and Battery Power Systems

MARKING: 34K

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

Symbol	Parameter	Rating	Unit
V_{DSS}	Drain-Source Voltage	20	V
V_{GSS}	Gate-Source Voltage	±12	
I_D	Continue Drain Current	0.7	A
I_{DM}	Pulsed Drain Current	1.9	
I_S	Diode Continuous Forward Current	0.27	A
T_J	Maximum Junction Temperature	150	°C
T_{STG}	Storage Temperature Range	-55 to 150	
$R_{\theta JA}$*	Thermal Resistance-Junction to Ambient(SOT23)	350	°C/W

Static Electrical Characteristics (T_A=25°C Unless Otherwise Noted)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics*						
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V, I_{DS}=250μA	20	-	-	V
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}=16V, V_{GS}=0V	-	-	1	μA
		T_J=85°C	-	-	30	
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}, I_{DS}=250μA	0.45	0.75	1	V
I_{GSS}	Gate Leakage Current	V_{GS}=±12V, V_{DS}=0V	-	-	±10	μA
$R_{DS(ON)}$	Drain-Source On-state Resistance	V_{GS}=4.5V, I_{DS}=0.5A	-	270	450	mΩ
		V_{GS}=2.5V, I_{DS}=0.3A	-	350	600	
V_{SD}	Diode Forward Voltage	I_{SD}=0.5A, V_{GS}=0V	-	0.7	1.3	V

*Note:

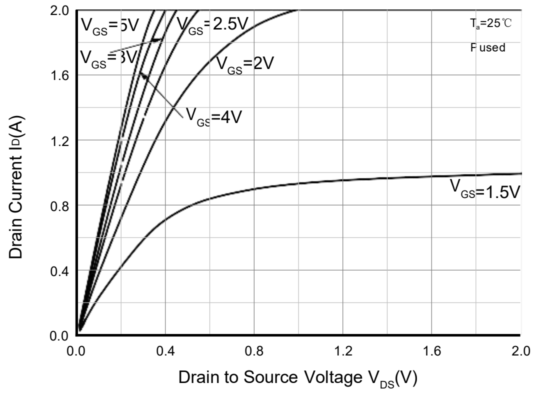
a : Current maybe limit by junction temperature.

b : The $R_{\theta JC}$ is the sum of the thermal impedance from junction to ambient and depend on package type.

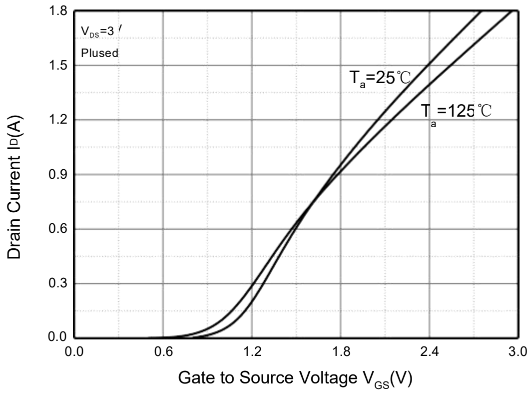
c : MOS static characteristics test by wafer level(CP).

Typical Electrical and Thermal Characteristics

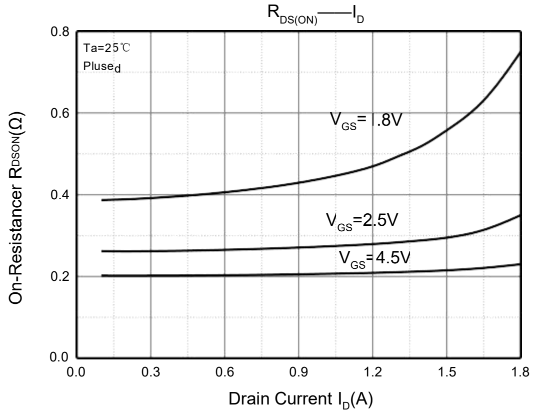
Output Characteristics



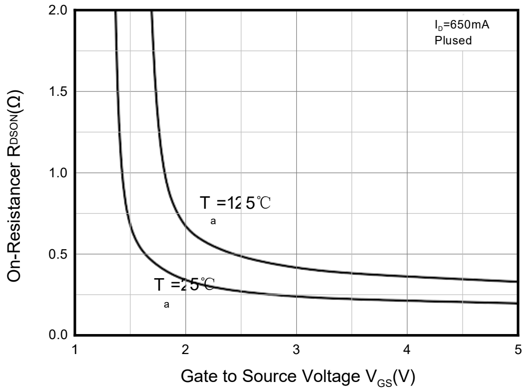
Transfer Characteristics



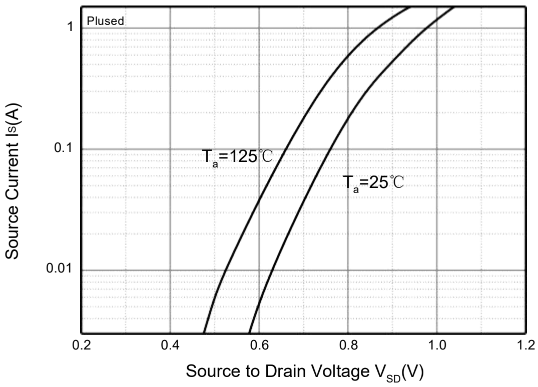
$R_{DS(ON)}$——I_D



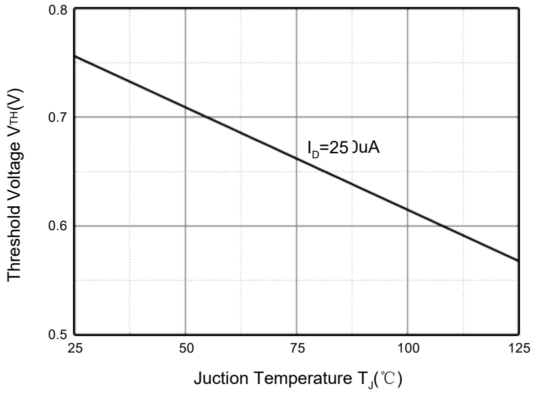
$R_{DS(ON)}$——V_{GS}



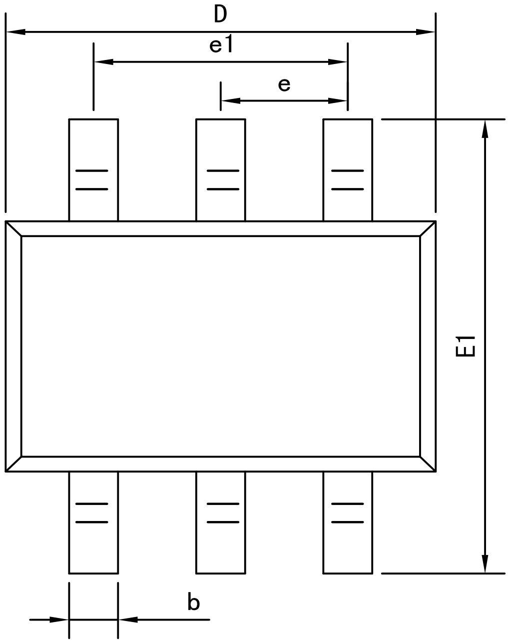
I_S——V_{SD}

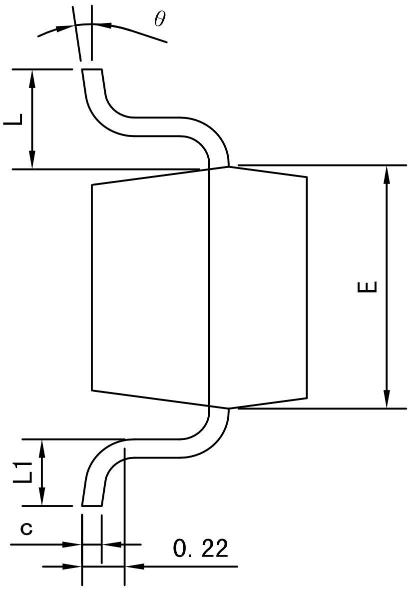


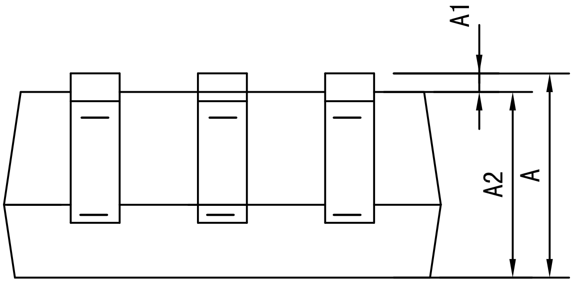
Threshold Voltage



SOT-363 Package outline dimensions

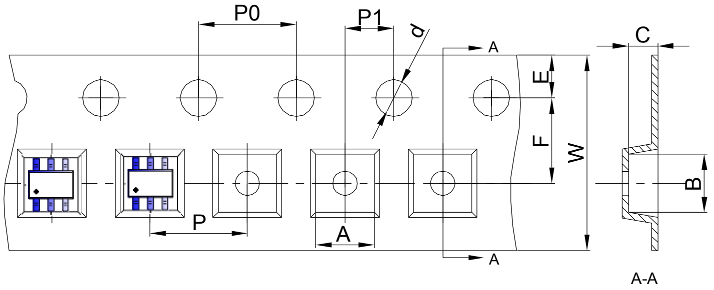






Symbol	Dimension in Millimeters	
	Min	**Max**
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
θ	0°	8°

SOT-363 Embossed Carrier Tape



Packaging Description:

SOT-363 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat 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 3,000 units per 7" or 17.8cm 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
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-363 Tape Leader and Trailer