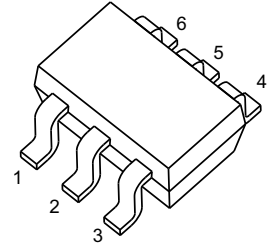


Dual N-Channel MOSFET

SOT-363



$V_{(BR)DSS}$	$R_{DS(on)MAX}$	I_D
20 V	380mΩ@ 4.5V	0.75A
	450mΩ@ 2.5V	
	800mΩ@ 1.8V	

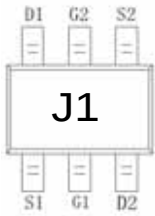
FEATURE

- Lead Free Product is Acquired
- Surface Mount Package
- N-Channel Switch with Low $R_{DS(on)}$
- Operated at Low Logic Level Gate Drive Equivalent to Two RM3134

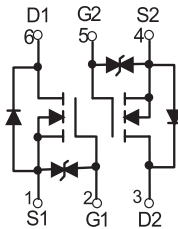
APPLICATION

- Load/Power Switching
- Interfacing Switching
- Battery Management for Ultra Small Portable Electronics
- Logic Level Shift

MARKING



Equivalent Circuit



ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-source voltage	V_{DS}	20	V
Typical Gate-source voltage	V_{GS}	± 12	V
Continuous drain current ($t \leq 10s$)	I_D	0.75	A
Power dissipation*	P_D	0.15	W
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	$^\circ\text{C/W}$
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~ +150	$^\circ\text{C}$

* Repetitive rating : Pulse width limited by junction temperature.

MOSFET ELECTRICAL CHARACTERISTICS $T_a=25^{\circ}\text{C}$ unless otherwise specified

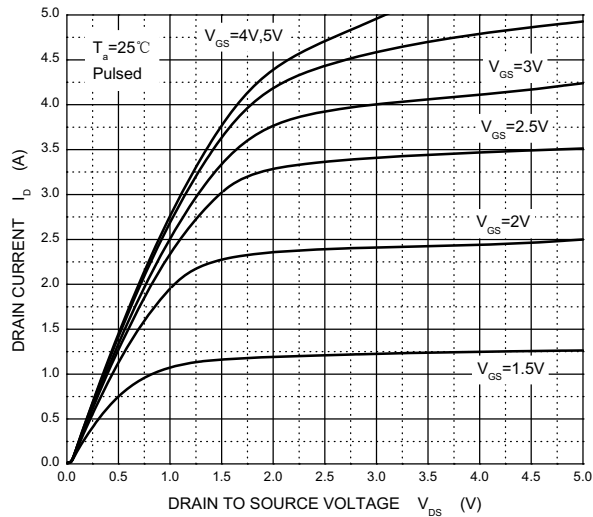
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC PARAMETERS						
Drain-source breakdown voltage	V _{(BR) DSS}	V _{GS} = 0V, I _D =250μA	20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} =20V,V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} =±10V, V _{DS} = 0V			±20	μA
Gate threshold voltage (note 1)	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.35	0.54	1.1	V
Drain-source on-resistance (note 1)	R _{DS(on)}	V _{GS} =4.5V, I _D =0.65A		270	380	mΩ
		V _{GS} =2.5V, I _D =0.55A		320	450	mΩ
		V _{GS} =1.8V, I _D =0.45A		390	800	mΩ
Forward tranconductance (note 1)	g _{FS}	V _{DS} =10V, I _D =0.8A		1.6		S
Diode forward voltage(note 1)	V _{SD}	I _S =0.15A, V _{GS} = 0V			1.2	V
DYNAMIC PARAMETERS (note 2)						
Input Capacitance	C _{iss}	V _{DS} =16V,V _{GS} =0V,f =1MHz		79	120	pF
Output Capacitance	C _{oss}			13	20	pF
Reverse Transfer Capacitance	C _{rss}			9	15	pF
SWITCHING PARAMETERS(note 2)						
Turn-on delay time	t _{d(on)}	V _{GS} =4.5V,V _{DS} =10V, I _D =0.5A,R _{GEN} =10Ω		6.7		ns
Turn-on rise time	t _r			4.8		ns
Turn-off delay time	t _{d(off)}			17.3		ns
Turn-off fall time	t _f			7.4		ns
Total Gate Charge	Q _g	V _{DS} =10V,V _{GS} =4.5V,I _D =0.25A		1.2		nC
Gate-Source Charge	Q _{gs}			0.28		nC
Gate-Drain Charge	Q _{gd}			0.2		nC

Notes :

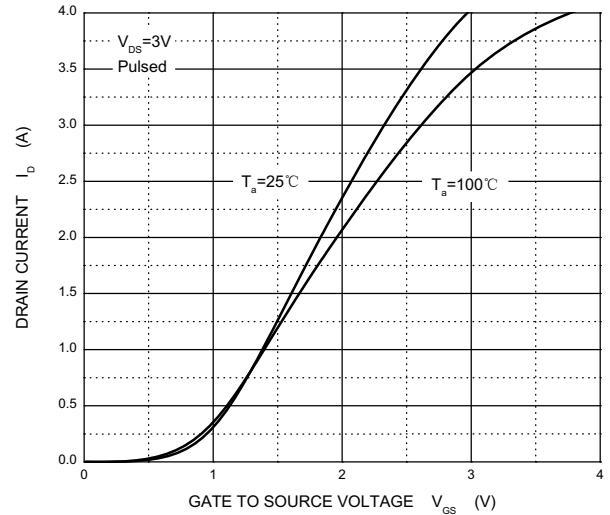
1. Pulse Test : Pulse width $\leq 300\mu s$, duty cycle $\leq 0.5\%$.
2. Guaranteed by design, not subject to production testing.

RATING AND CHARACTERISTICS CURVES (RM3134)

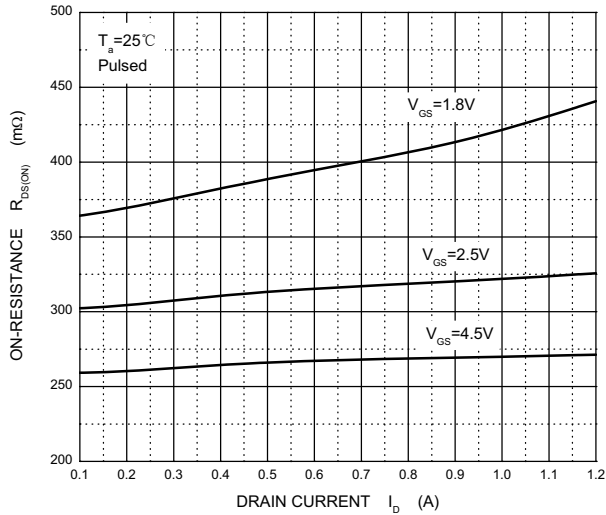
Output Characteristics



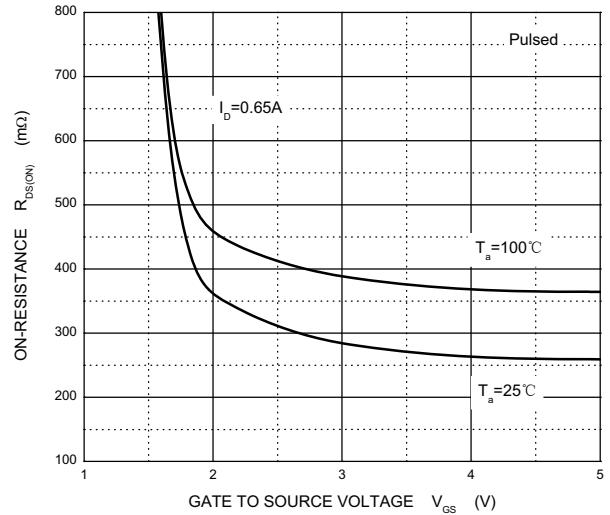
Transfer Characteristics



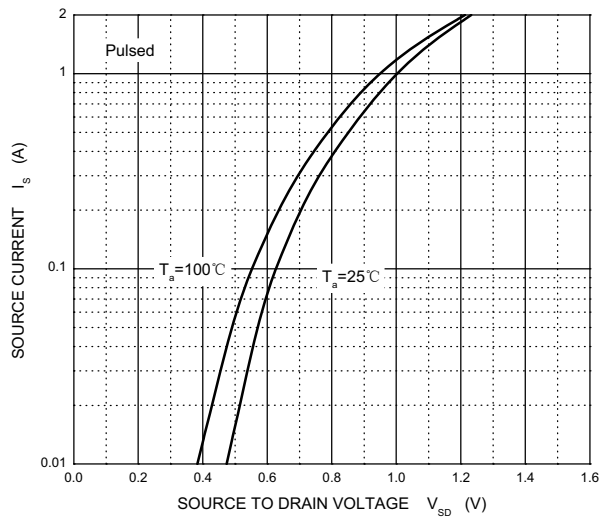
$R_{DS(ON)}$ — I_D



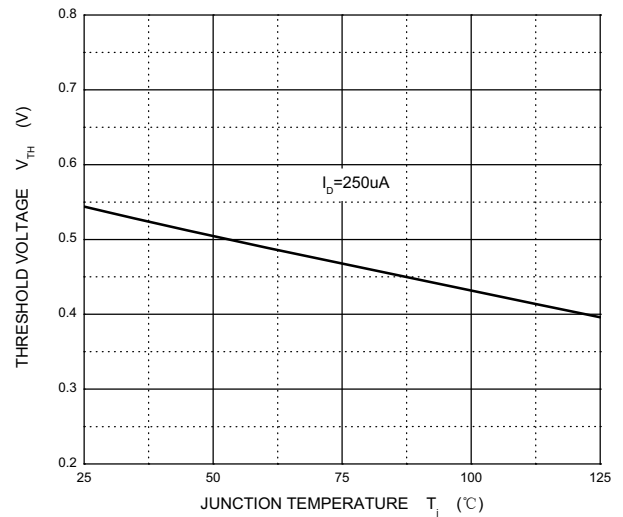
$R_{DS(ON)}$ — V_{GS}



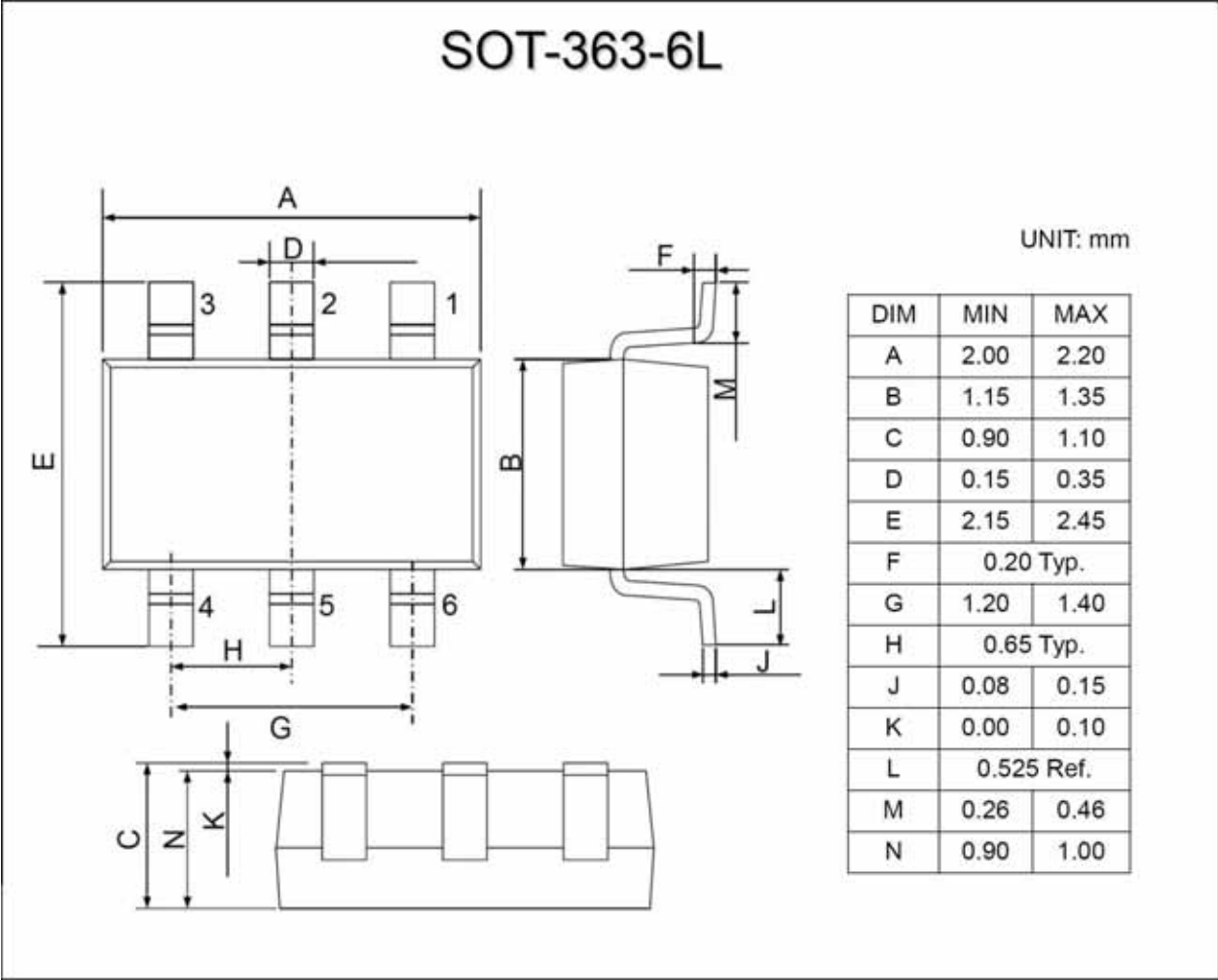
I_S — V_{SD}



Threshold Voltage



Package Dimensions



PKG	tape	Reel	Box	pcs/reel	reel/box	pcs/box	box/carton	pcs/carton
SOT-363	IC-ZD-05	7" (IC-JP-05)	SOT363	3000	10	30000	4	120000

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