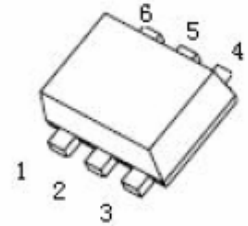
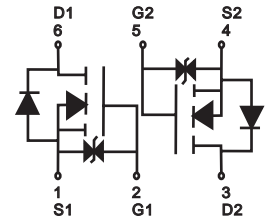




MT3134KV Plastic-Encapsulate MOSFETS

Dual N-Channel MOSFET

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



SOT- 563

FEATURE

- Surface Mount Package
- N-Channel Switch with Low $R_{DS(on)}$
- Operated at Low Logic Level Gate Drive
- Equivalent to Two CJ3134K.

APPLICATION

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

MARKING : 34K

ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}C$ 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(note1)	P_D	0.15	W
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	$^{\circ}C/W$
Junction temperature	T_J	150	$^{\circ}C$
Storage temperature	T_{stg}	-55~ +150	$^{\circ}C$



MOSFET ELECTRICAL CHARACTERISTICS

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

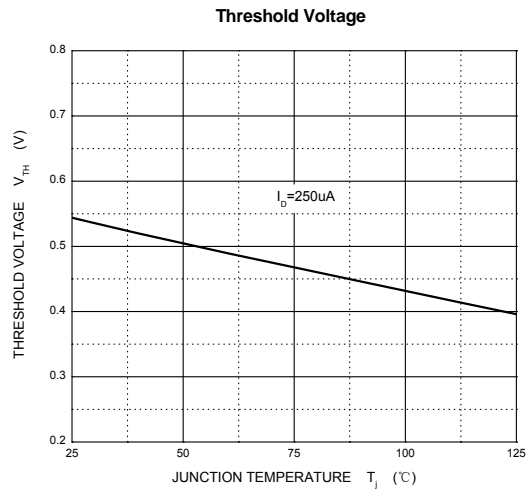
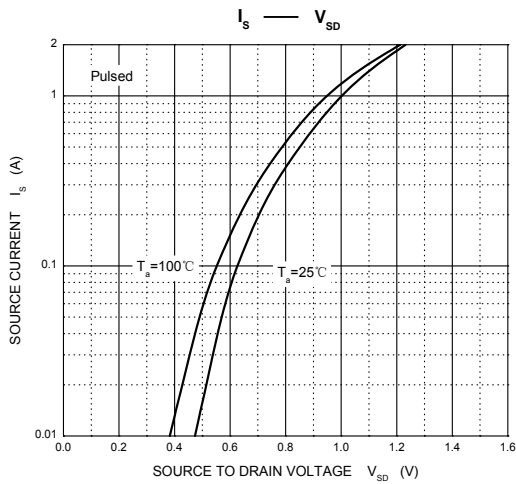
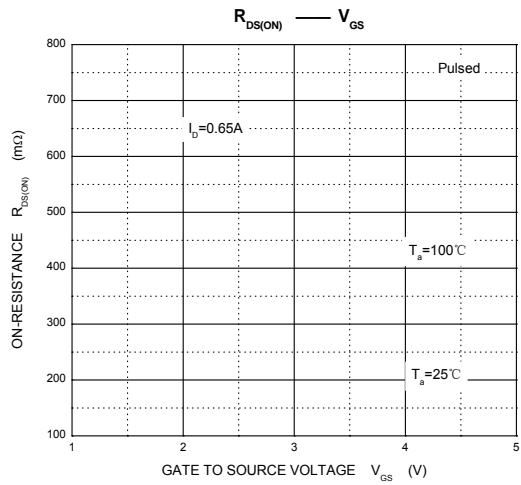
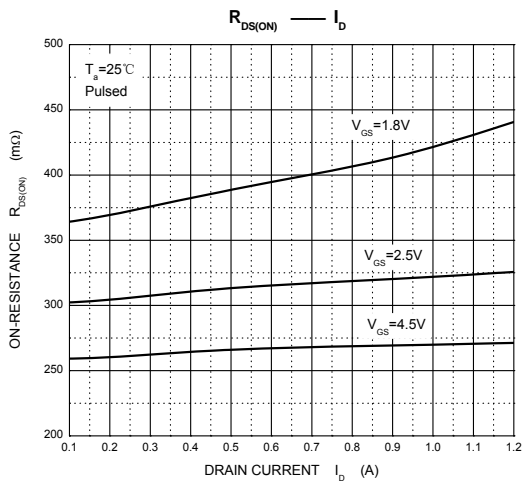
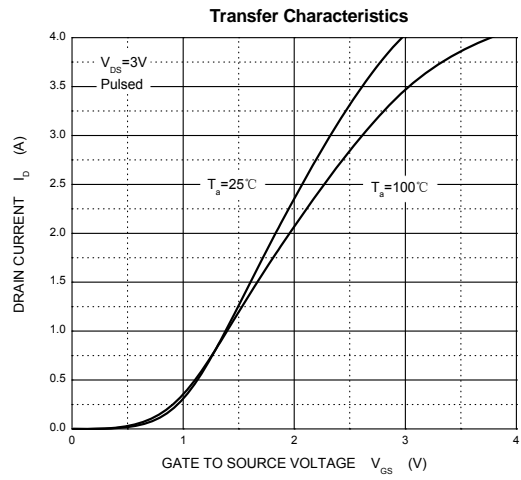
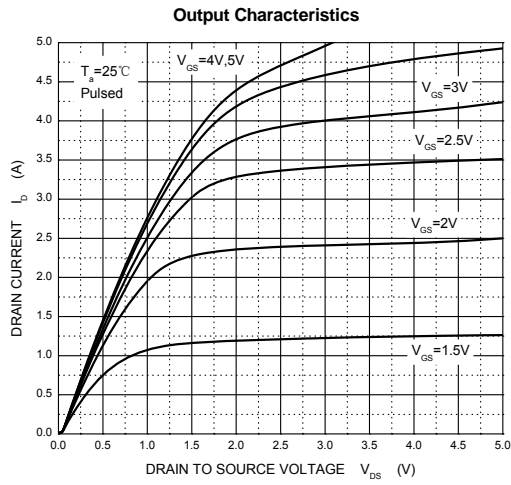
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC PARAMETERS						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	20			V
Zero gate voltage drain current	I_{DSS}	$V_{DS} = 20V, V_{GS} = 0V$			1	μA
Gate-body leakage current	I_{GSS}	$V_{GS} = \pm 10V, V_{DS} = 0V$			± 20	μA
Gate threshold voltage (note 2)	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	0.35	0.54	1.1	V
Drain-source on-resistance (note 2)	$R_{DS(on)}$	$V_{GS} = 4.5V, I_D = 0.65A$		270	380	$m\Omega$
		$V_{GS} = 2.5V, I_D = 0.55A$		320	450	$m\Omega$
		$V_{GS} = 1.8V, I_D = 0.45A$		390	800	$m\Omega$
Forward tranconductance (note 2)	g_{FS}	$V_{DS} = 10V, I_D = 0.8A$		1.6		S
Diode forward voltage(note 2)	V_{SD}	$I_S = 0.15A, V_{GS} = 0V$			1.2	V
DYNAMIC PARAMETERS (note 3)						
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 3)						
Turn-on delay time	$t_{d(on)}$	$V_{GS} = 4.5V, V_{DS} = 10V, I_D = 0.5A, R_{GEN} = 10\Omega$		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	$V_{DS} = 10V, V_{GS} = 4.5V, I_D = 7A$		20		nC
Gate-Source Charge	Q_{gs}			1		nC
Gate-Drain Charge	Q_{gd}			4		nC

Notes :

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

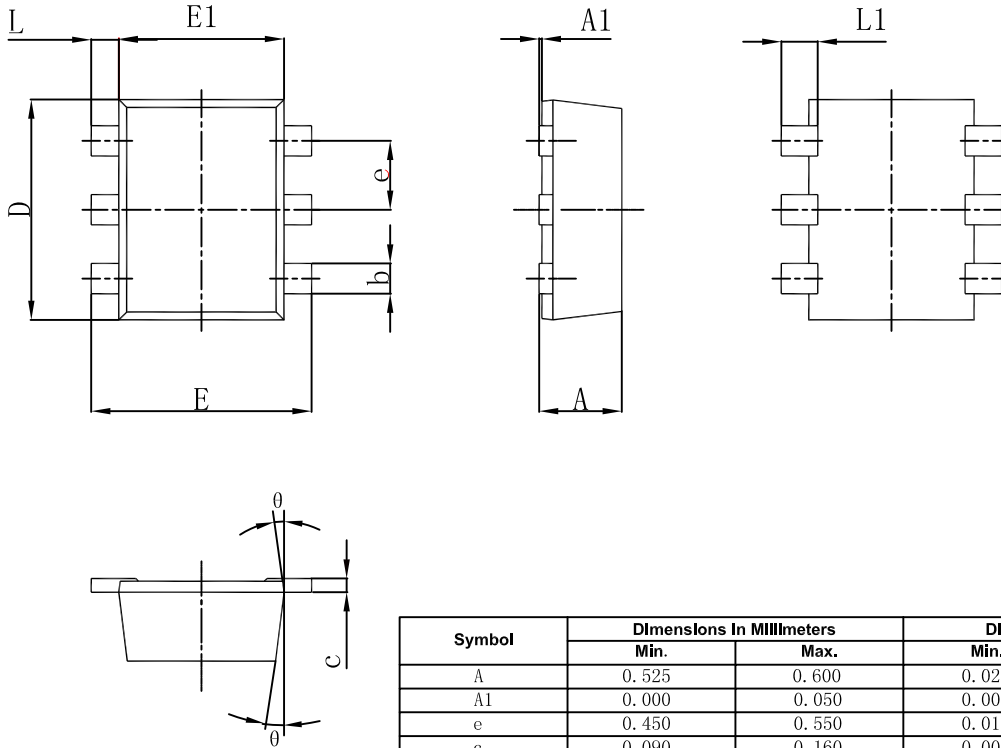


Typical Characteristics



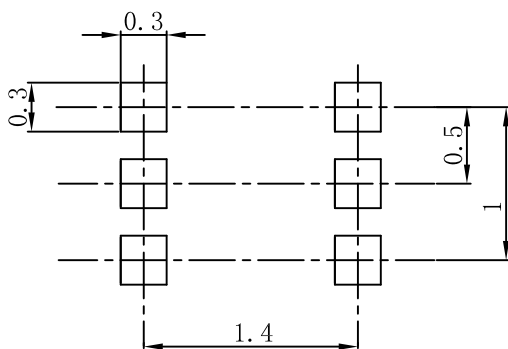


SOT-563 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.525	0.600	0.021	0.024
A1	0.000	0.050	0.000	0.002
e	0.450	0.550	0.018	0.022
c	0.090	0.160	0.004	0.006
D	1.500	1.700	0.059	0.067
b	0.170	0.270	0.007	0.011
E1	1.100	1.300	0.043	0.051
E	1.500	1.700	0.059	0.067
L	0.100	0.300	0.004	0.012
L1	0.200	0.400	0.008	0.016
θ	7 ⁰ REF.		7 ⁰ REF.	

SOT-563 Suggested Pad Layout

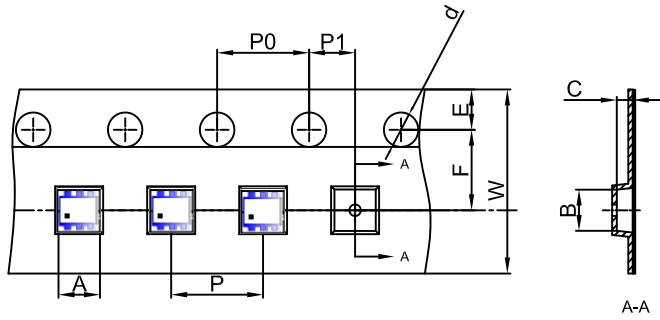


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



SOT-563 Embossed Carrier Tape



Packaging Description:

SOT-563 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-563	1.78	1.78	0.69	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-563 Tape Leader and Trailer

