

PW3541KDW

30V N-Channel MOSFET

260mA 30V; $R_{DS(ON)typ}=1.1\Omega@4V$, $R_{DS(ON)typ}=1.4\Omega@2.5V$

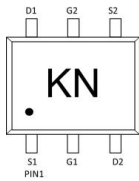
FEATURE

- Dual N-Channel MOSFET
- Low On-Resistance
- Low Input Capacitance
- Fast Switching Speed
- Small Surface Mount Package

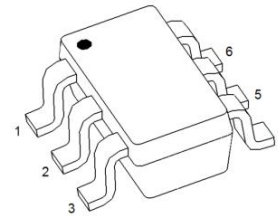
Application

- DC-DC Converters
- Power management functions
- Battery Operated Systems and Solid-State Relays
- Drivers: Relays, Solenoids, Lamps, Hammers, Displays, Memories, Transistors, etc

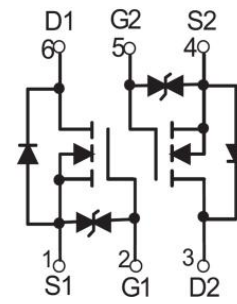
MARKING:



SOT-363



Schematic diagram



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

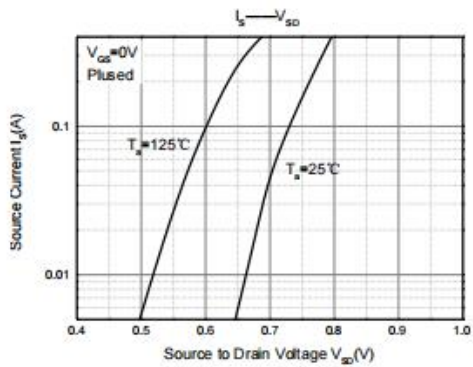
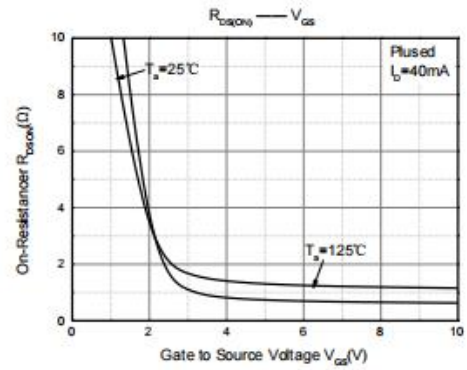
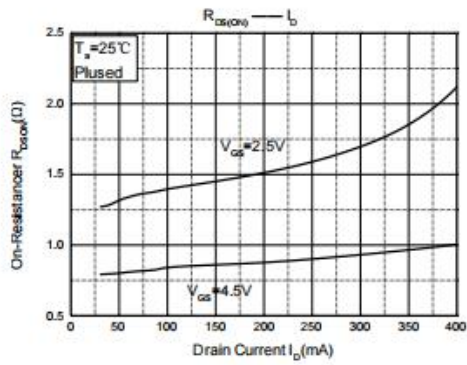
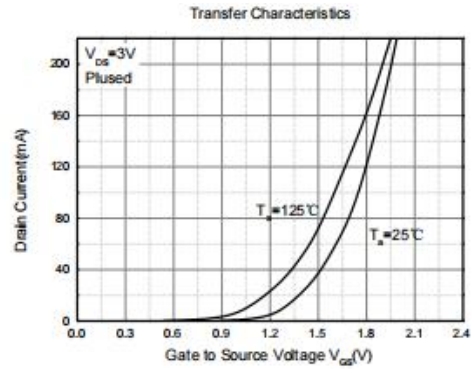
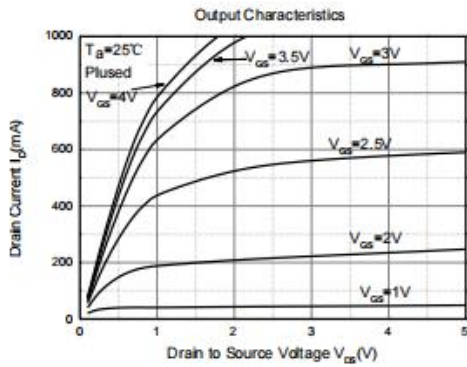
Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current ¹	I_D	260	mA
Power Dissipation ¹	P_D	310	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	411	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^\circ\text{C}$

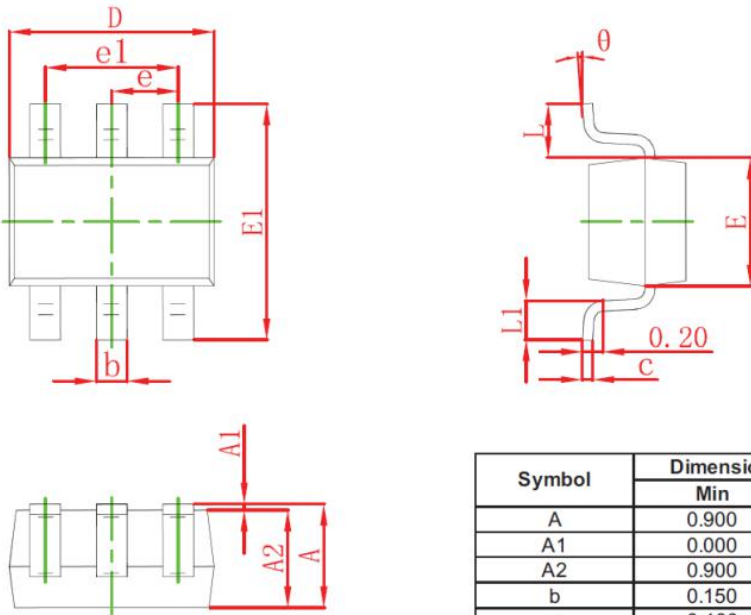
MOSFET ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
STATIC CHARACTERISTICS²						
Drain-source breakdown voltage	V _{(BR)DSS}	V _{GS} = 0V, I _D = 250μA	50			V
Zero gate voltage drain current	I _{DSS}	V _{DS} = 50V, V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} = ±20V, V _{DS} = 0V			±10	nA
Gate threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.7		1.5	V
Drain-source on-resistance	R _{DS(on)}	V _{GS} = 4.0V, I _D = 10mA		1.1	3.0	Ω
		V _{GS} = 2.5V, I _D = 1mA		1.4	4.2	
Forward tranconductance	g _{FS}	V _{DS} = 3V, I _D = 10mA		100		mS
Diode Forward voltage	V _{DS}	I _S = 350mA, V _{GS} = 0V		1.0	1.2	V
DYNAMIC CHARACTERISTICS³						
Input Capacitance	C _{iss}	V _{DS} = 25V, V _{GS} = 0V, f = 1MHz		47		pF
Output Capacitance	C _{oss}			5.5		
Reverse Transfer Capacitance	C _{rss}			4.5		
Total Gate Charge	Q _g	V _{GS} = 4.5V, V _{DS} = 10V, I _D = 250mA		0.8		nC
Gate-Source Charge	Q _{gs}			0.4		
Gate-Drain Charge	Q _{gd}			0.2		
Turn-on delay time	t _{d(on)}	V _{DD} = 30V, V _{GS} = 10V, R _G = 25Ω, I _D = 200mA		2.9		nS
Turn-on rise time	t _r			2.7		
Turn-off delay time	t _{d(off)}			20		
Turn-off fall time	t _f			12		

Notes :

1. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.
 2. Short duration pulse test used to minimize self-heating effect.
- Guaranteed by design. Not subject to product testing.

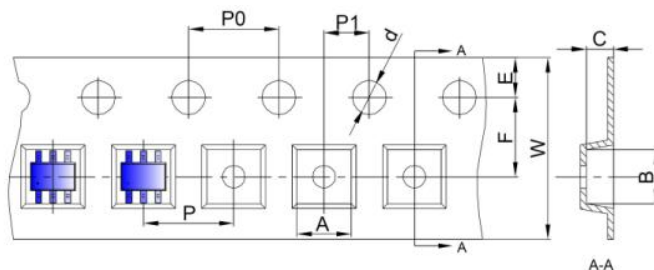




Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

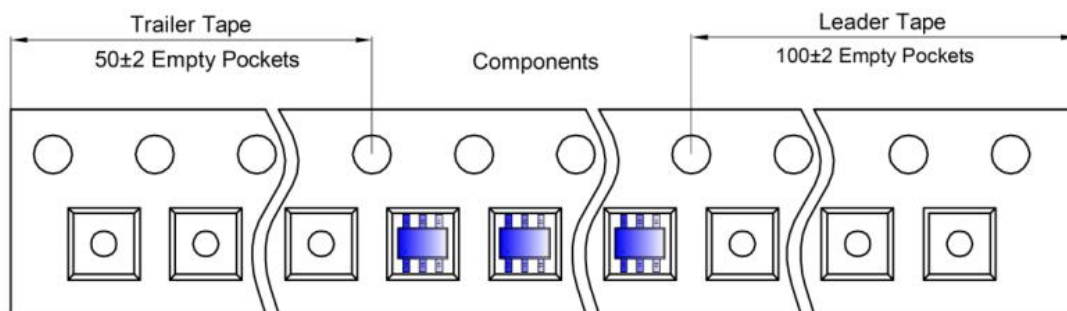
SOT-363 Tape and Reel

SOT-363 Embossed Carrier Tape

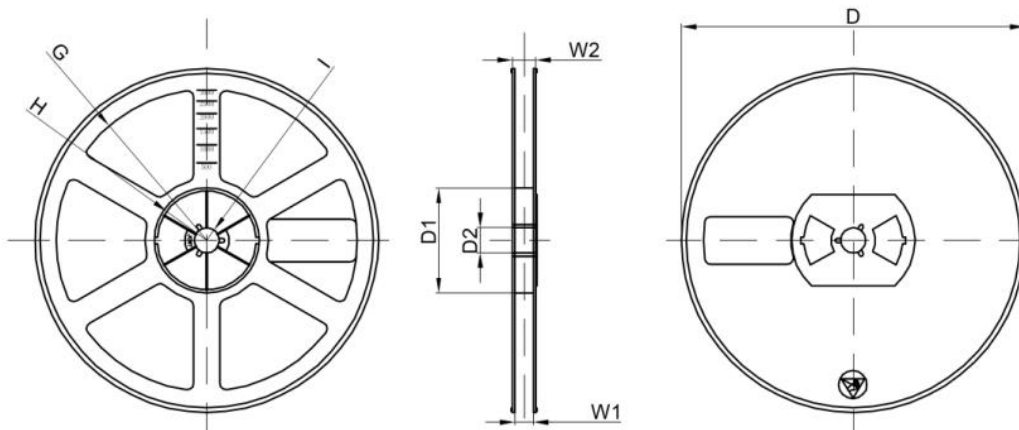


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-363 Tape Leader and Trailer



SOT-363 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	30,000 pcs	203×203×195	120,000 pcs	438×438×220	