

## SOT-363 Plastic-Encapsulate MOSFETS

### Features

- $V_{DS}=60V$
- $I_D=0.115A$
- $R_{DS(on)}@V_{GS}=5V < 7.5\Omega$
- Low Input Capacitance
- Low On-Resistance
- Fast Switching Speed

**Drain-source Voltage**  
60 V  
**Drain Current**  
0.115 Ampere

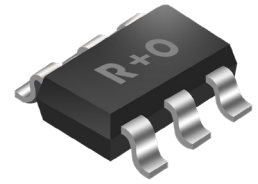
### Applications

- Load Switch
- DC/DC Converter

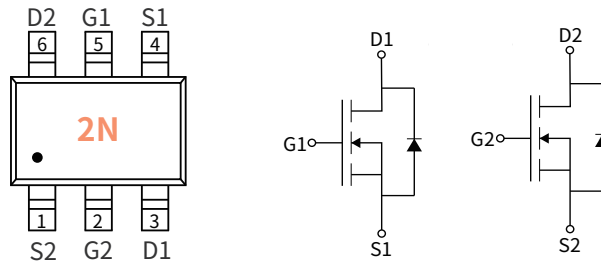
### Mechanical Data

- Case: SOT-363  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

### SOT-363



### Function Diagram



### Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-363	R1	0.0068	3000	30000	120000	7"

### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Drain-source Voltage	$V_{DS}$	V	60
Gate-source Voltage	$V_{GS}$	V	$\pm 20$
Drain Current	$I_D$	A	0.115
Total Power Dissipation @ $T_A=25^\circ C$	$P_D$	W	0.2
Thermal Resistance Junction-to-Ambient @ Steady State	$R_{\theta JA}$	$^\circ C / W$	625
Junction and Storage Temperature Range	$T_J, T_{STG}$	$^\circ C$	-55 ~ +150

● **Static Parameter Characteristics** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	V	60	—	—
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60V, V_{GS}=0V$	$\mu A$	—	—	1.0
Gate-Body Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0V$	$\mu A$	—	—	$\pm 10$
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	V	1.0	1.76	2.0
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=5V, I_D=0.05A$	$\Omega$	—	1.7	7.5
Diode Forward Voltage	$V_{SD}$	$I_S=0.115A, V_{GS}=0V$	V	—	—	1.0
Maximum Body-Diode Continuous Current	$I_S$	—	A	—	—	0.115

● **Dynamic Parameters** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Input Capacitance	$C_{iss}$	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$	pF	—	50	—
Output Capacitance	$C_{oss}$			—	32	—
Reverse Transfer Capacitance	$C_{rss}$			—	19	—

● **Switching Parameters** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	Condition	UNIT	Min	Typ	Max
Turn-on Delay Time	$t_{D(on)}$	$V_{GS}=10V, V_{DD}=30V$ $I_D=0.2A, R_{GEN}=25\Omega$	ns	—	5.85	—
Turn-off Delay Time	$t_{D(off)}$			—	12.5	—

## ● Package Outline Dimensions (SOT-363)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.9	1.10	0.035	0.043
A1	-	0.10	-	0.004
A2	0.90	1.00	0.035	0.039
b	0.15	0.40	0.006	0.016
D	2.00	2.20	0.079	0.087
E	1.15	1.35	0.045	0.053
E1	2.15	2.40	0.085	0.094
e	0.650TYP		0.026TYP	
e1	1.20	1.40	0.047	0.055
L	0.525REF		0.021REF	
L1	0.26	0.46	0.010	0.018
$\theta$	-	8°	-	8°

## ● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
G	-	0.65	-	0.025
H	-	1.94	-	0.076
X	0.40	-	0.016	-
Y	0.80	-	0.031	-