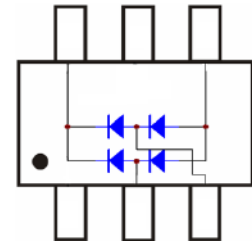


Features

- Fast Switching Speed.
- High Conductance.
- For General Purpose Switching Applications.
- Ultra-small surface mount package.



4DS41WV
SOT-563

Typical Applications

- For general purpose switching application.

Mechanical Data

- Case: SOT-563.
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208.

Ordering Information

Part Number	Package	Shipping	Marking Code
4DS41WV□	SOT-563	3000/Tape Reel	41W

□: none is for Lead Free package;

“G” is for Halogen Free package.

Maximum Ratings (@TA=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_o	150	mA
Non-Repetitive peak forward surge current			
@t=1.0μs	I_{FSM}	2	A
@t=1.0s		1	
Power Dissipation	P_D	150	mW

Thermal Characteristics

Parameter	Symbol	Value	Units
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	833	°C/W
Operating Junction Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

* Part mounted on FR-4 board with recommended pad layout

Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F	$I_F=1.0\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$	-	-	0.715 0.855 1.0 1.25	V
Maximum Peak Reverse Current	I_R	$V_R=75\text{V}$	-	-	1.0	μA
		$V_R=75\text{V}, T_J=150^\circ\text{C}$	-	-	50	μA
		$V_R=25\text{V}, T_J=150^\circ\text{C}$	-	-	30	μA
		$V_R=20\text{V}$	-	-	25	nA
Total Capacitance	C_J	$V_R=0, f=1.0\text{MHz}$	-	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R, R_L=100\Omega$	-	-	4	ns

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

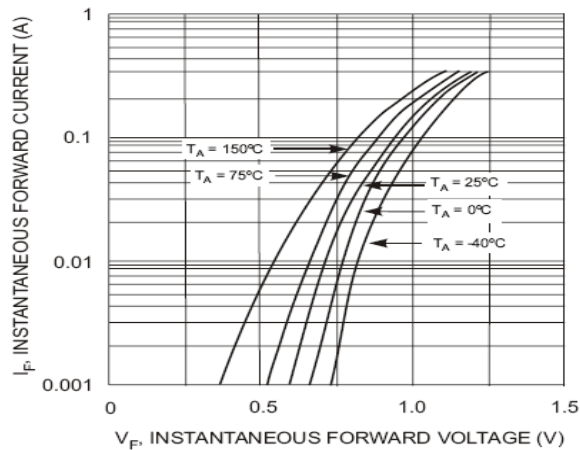


Fig. 1 Forward Characteristics

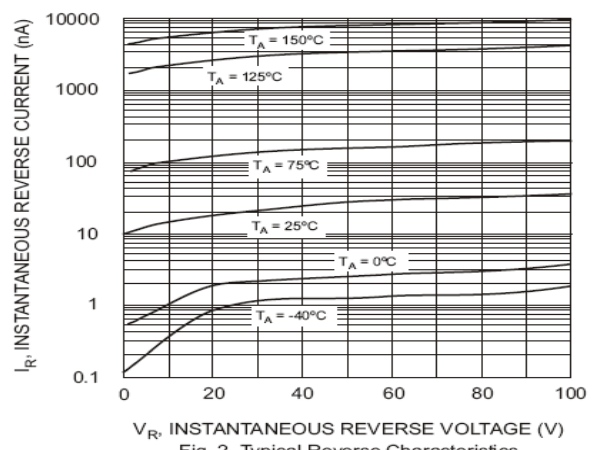


Fig. 2 Typical Reverse Characteristics

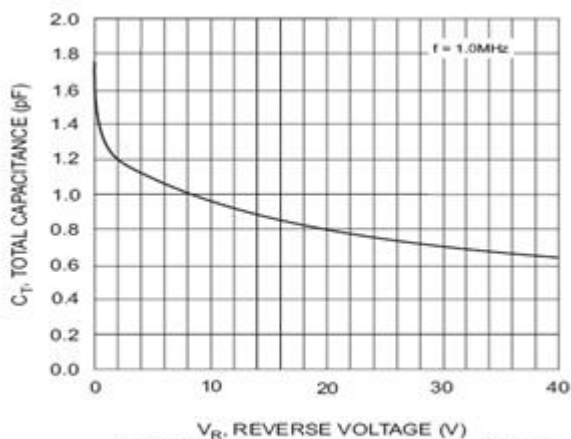


Fig. 3 Typical Capacitance vs. Reverse Voltage

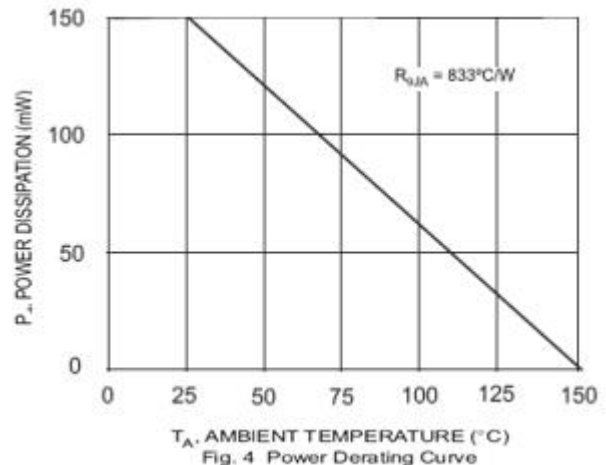
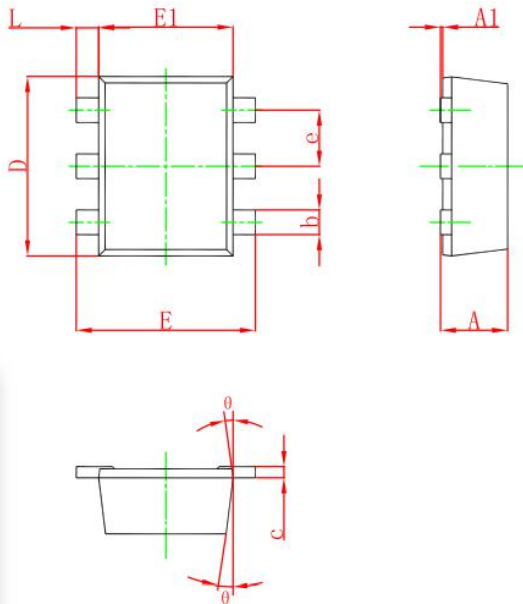


Fig. 4 Power Derating Curve

Package Outline Dimensions(unit:mm)

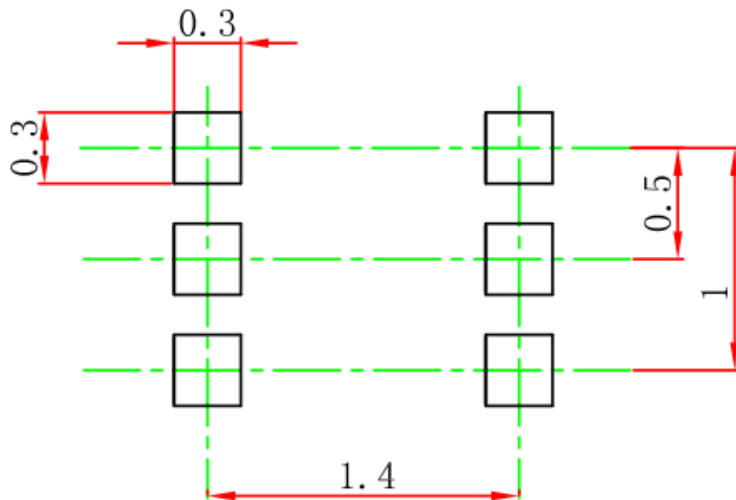
SOT-563



SOT-563		
Dim	Min	Max
A	0.525	0.600
A1	0.000	0.050
e	0.450	0.550
c	0.090	0.160
D	1.500	1.700
b	0.170	0.270
E1	1.100	1.300
E	1.500	1.700
L	0.100	0.300
θ	7°REF.	

Mounting Pad Layout(unit:mm)

SOT-563



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