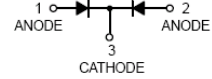


Features

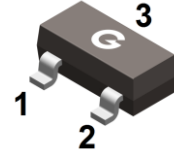
- High speed switching
- High reliability
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



Mechanical Data

- Case: SOT-23
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-23

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TDAN202	SOT-23	3000 pcs / Tape & Reel	N

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RM}	80	V
Reverse Voltage	V _R	80	V
Average Rectified Output Current	I _F	100	mA
Peak Forward Current	I _{FM}	300	mA
Non-repetitive Peak Forward Surge Current (t = 1μs)	I _{FSM}	4	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	260	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	160	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	190	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 20Z copper

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	80	-	-	V
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	-	1.2	V
Maximum Peak Reverse Current	I_R	$V_R = 70\text{V}$	-	-	0.1	μA
Total Capacitance	C_J	$V_R = 6\text{V}, f = 1.0\text{MHz}$	-	-	3.5	pF
Reverse Recovery Time	t_{rr}	$I_F = 5\text{mA}, V_R = 6\text{V}$ $R_L = 50\Omega$	-	-	4	ns

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

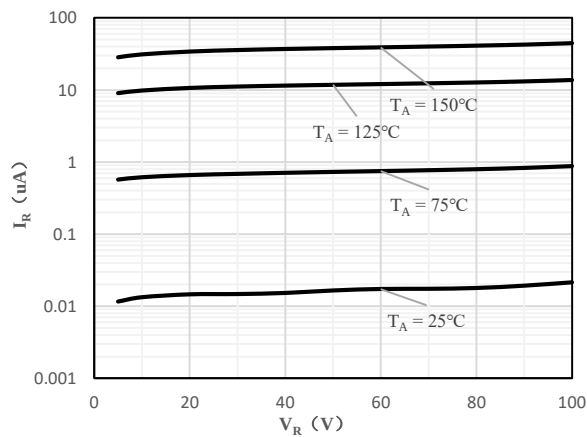


Fig 1 Typical Reverse Characteristic

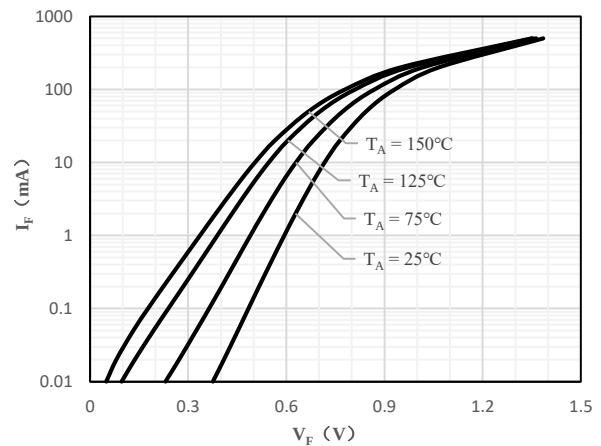


Fig 2 Typical Forward Characteristics

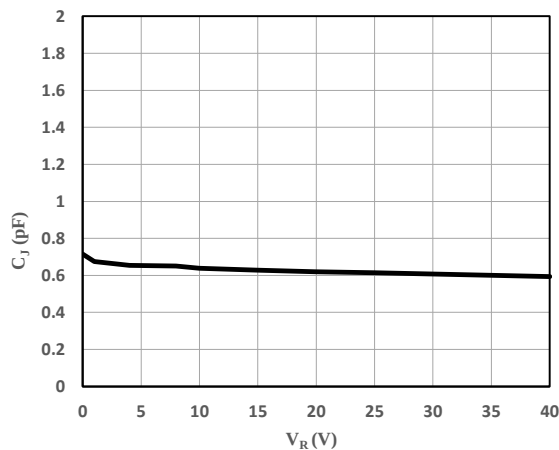
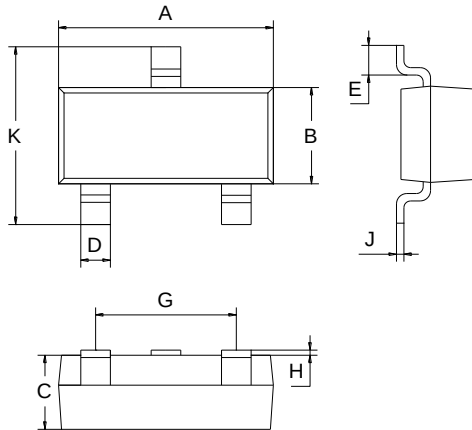


Fig 3 Capacitance vs. Reverse Voltage

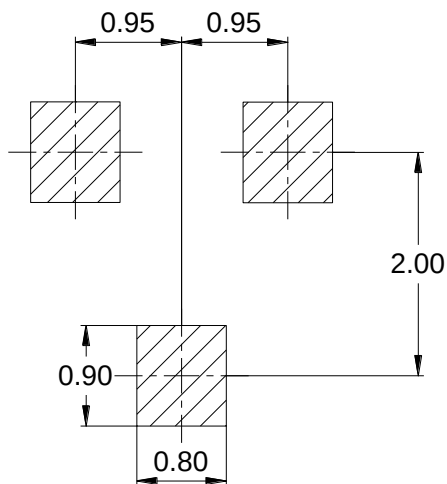
Package Outline Dimensions (Unit: mm)



SOT-23		
Dimension	Min.	Max.
A	2.70	3.10
B	1.10	1.50
C	0.9	1.1
D	0.3	0.5
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.05	0.15
K	2.20	2.60

Package Outline Dimensions (Unit: mm)

SOT-23



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