

Surface Mount Switching Diode

(Pb) Lead(Pb)-Free

Features:

- *Extremely High Switching Speedff
- *Low Reverse Leakage Current
- *Small Outline Surface Mount SC-89 Package
- *High Reliability

Applications:

Ultra High Speed Switching

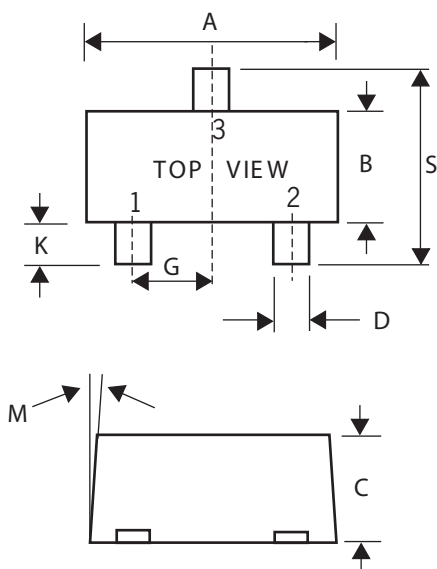
SWITCHING DIODE
100m AMPERRES
80 VOLTS



SC-89
(SOT-523F)

SC-89 Outline Demensions

Unit:mm



SC-89			
Dim	Min	Nom	Max
A	1.50	1.60	1.70
B	0.75	0.85	0.95
C	0.60	0.70	0.80
D	0.23	0.28	0.33
G	0.50BSC		
J	0.10	0.15	0.20
K	0.30	0.40	0.50
M	---	---	10°
N	---	---	10°
S	1.50	1.60	1.70

Maximum Ratings (EACH DIODE)

Characteristic	Symbol	Value	Unit
Non-Repetitive Reverse Voltage	V_{RM}	80	Volts
DC Reverse Voltage	V_R	80	Volts
Forward Current	I_F	100	mAdc
Peak Forward Surge Current	I_{FM}	300	mAdc
Non-Repetitive Peak Forward Surge Current @ $t=1\mu s$	I_{FSM}	4	Adc

Thermal Characteristics

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board *1, $T_A=25^\circ C$ Derate Above $25^\circ C$	P_D	150 1.2	mW mW/ $^\circ C$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833	$^\circ C/W$
Junction and Storage Temperature	T_J, T_{stg}	-55 to + 150	$^\circ C$

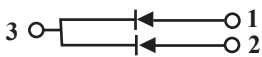
*1 ER-5=1.0x0.75x0.062 in

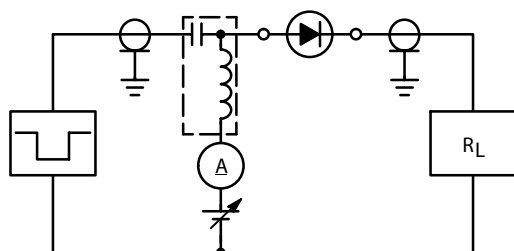
Electrical Characteristics ($T_A=25^\circ C$ Unless Otherwise Note) (Each Diode)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage ($I_R=100\mu A$)	V_{BR}	80	-	Vdc
Reverse Voltage Leakage Current ($V_R=70V$)	I_R	-	0.1	μA
Diode Capacitance ($V_R=6V_{dc}$, $f=1.0MHz$)	C_D	-	3.5	PF
Forward Voltage ($I_F=100mA$)	V_F	-	1.2	Vdc
Reverse Recovery Time (Figure 1.) ($I_R=5.0mA$, $V_R=6.0V_{dc}$)	t_{rr}	-	4.0	nS

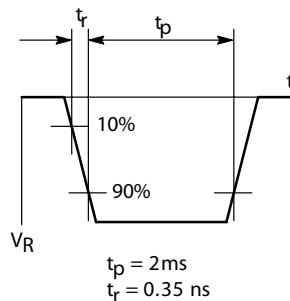
www.DataSheet4U.com

Device Marking

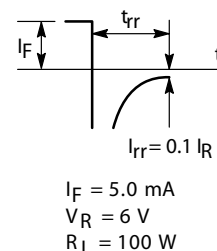
Item	Marking	Equivalent Circuit diagram
WAN222	N9	



RECOVERY TIME EQUIVALENT TEST CIRCUIT



INPUT PULSE



OUTPUT PULSE

FIG.1 Reverse Recovery Time Test Circuit for the DAN222

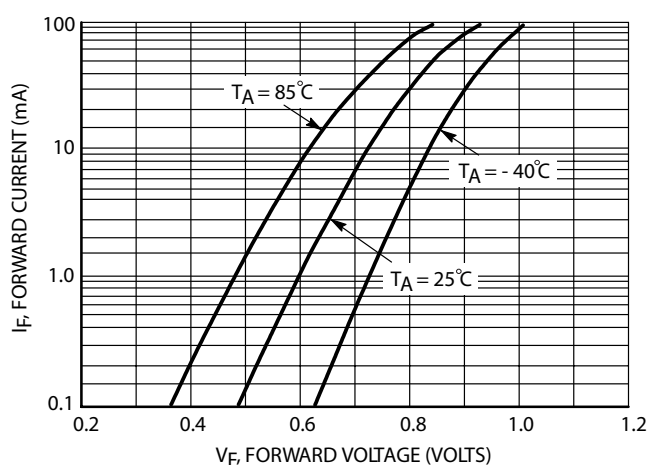


FIG.2 Forward Voltage

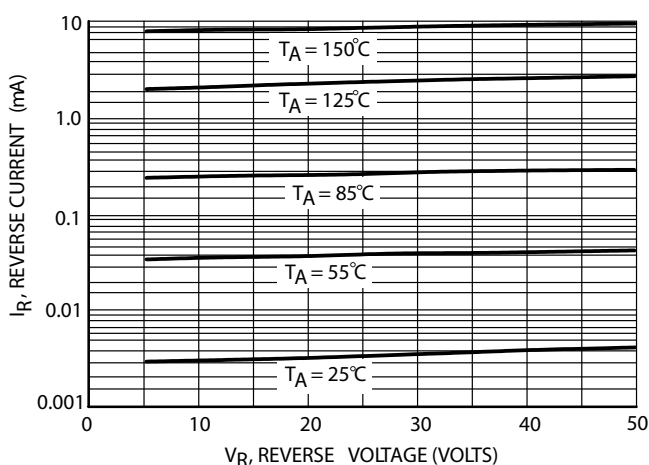


FIG.3 Reverse Current

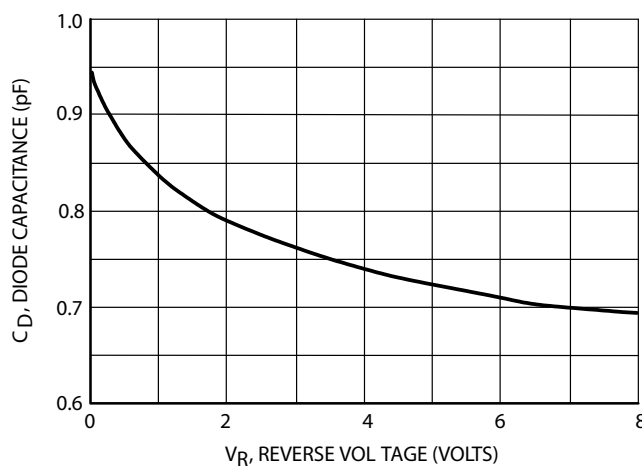


FIG.4 Diode Capacitance