

Surface Mount Switching Diodes

 Lead(Pb)-Free

Features:

- * Four types of packaging are available
- * High speed. (trr=1.5ns Typ.)
- * Suitable for high packing density layout
- * High reliability.

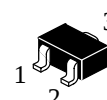
Mechanical Data:

- * Terminals: Solderable per MIL-STD-202, Method 208
- * Polarity: See Diagrams Page.2
- * Marking: See Diagrams Page.2
- * Weight: 0.002 grams (approx)

SWITCHING DIODES

100 mAMPERES

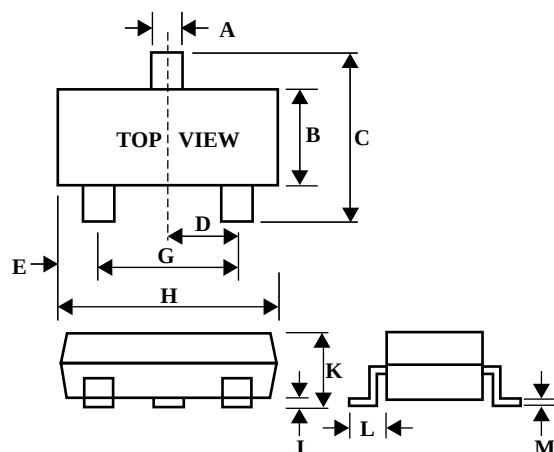
80 VOLTS



SOT-523(SC-75)

SOT-523 Outline Dimensions

Unit:mm



SOT-523

Dim	Min	Max
A	0.30	0.50
B	0.70	0.90
C	1.45	1.75
D	-	0.50
E	0.15	0.40
G	0.80	1.00
H	1.40	1.80
J	0.00	0.10
K	0.70	1.00
L	0.37	0.48
M	0.10	0.25

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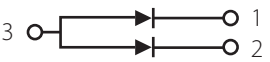
Maximum Ratings and Electrical Characteristics, Single Diode @ $T_A=25^{\circ}\text{C}$

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	80	V
DC reverse voltage	V_R	80	V
Maximum (peak) forward current	I_{FM}	300	mA
Average forward current	I_O	100	mA
Power dissipation	P_D	150	mW
Junction temperature	T_j	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	80		V
Reverse voltage leakage current	I_R	$V_R=70\text{V}$		0.1	μA
Forward voltage	V_F	$I_F=100\text{mA}$		1.2	V
Diode capacitance	C_D	$V_R=0, f=1\text{MHz}$		3.5	pF
Reverse recovery time	t_{rr}	$V_R=6\text{V}, I_F=I_R=5\text{mA}$		4	ns

Device Marking

Item	Marking	Equivalent Circuit diagram
WAP222	P	

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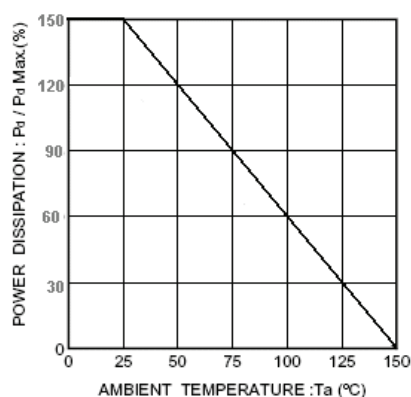
Electrical Characteristic curves($T_A=25^{\circ}\text{C}$)

Fig.1 Power attenuation curve

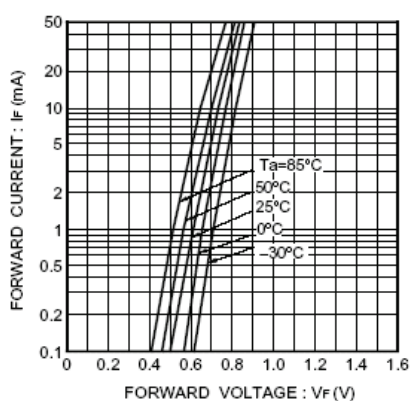


Fig.2 Forward characteristics (P Type)

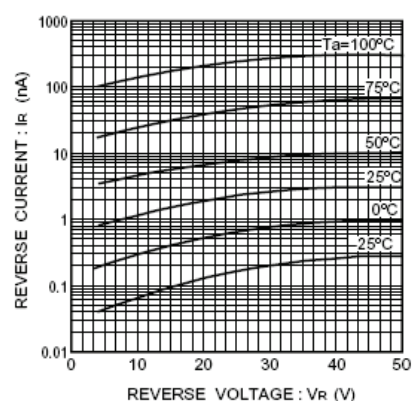


Fig.3 Reverse characteristics (P Type)

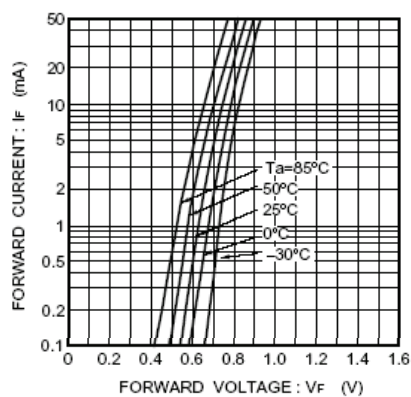


Fig.4 Forward characteristics (N Type)

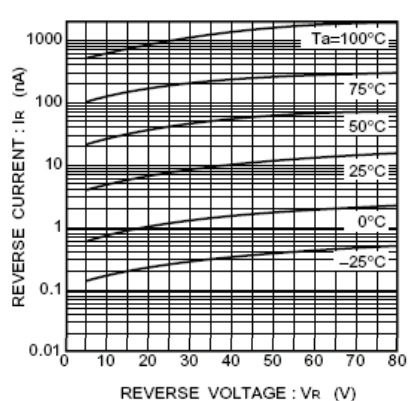


Fig.5 Reverse characteristics (N Type)

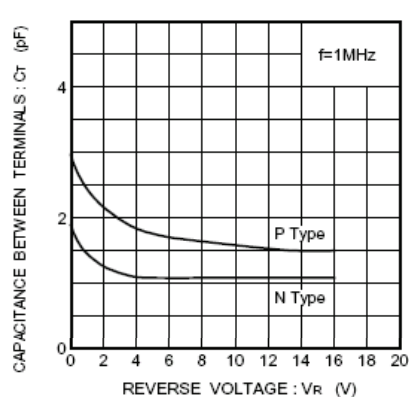


Fig.6 Capacitance between terminals characteristics

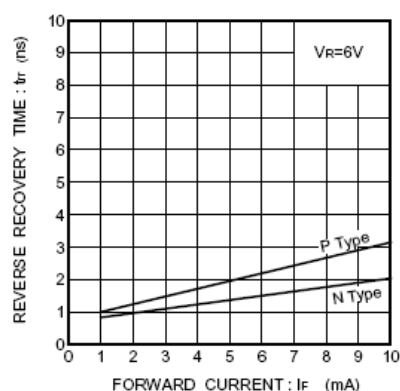
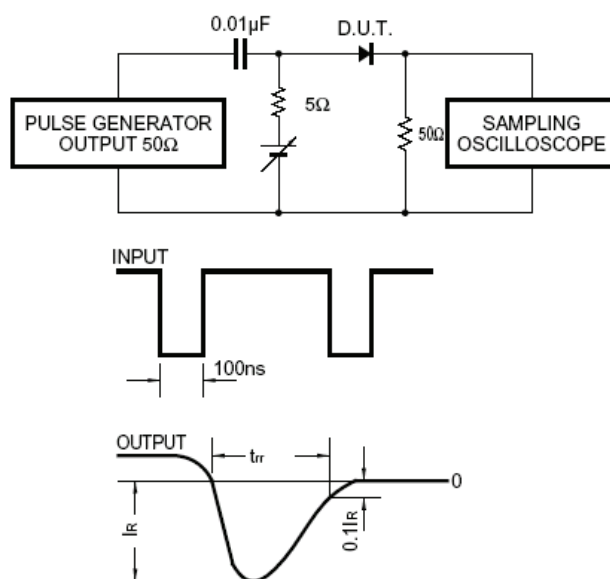


Fig.7 Reverse recovery time

Fig.8 Reverse recovery time (t_r) measurement circuit