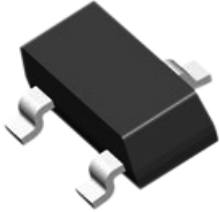
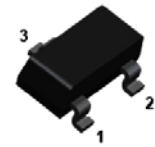


Surface Mount Switching Diode



Features:

- Fast Switching Speed
- High Conductance
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion



SOT-23

Applications:

Small signal switching

Max. Rating @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak repetitive peak reverse voltage Working peak reverse voltage DC reverse voltage	V _{RRM} V _{RMS} V _R	75	V
Non-repetitive peak reverse voltage	V _{RM}	100	V
RMS reverse voltage	V _{R(RMS)}	53	V
Forward continuous current	I _{FM}	300	mA
Average rectified output current	I _o	150	mA
Non-repetitive peak forward surge current @t = 1μs @t = 1s	I _{FSM}	2 1	A
Power dissipation	P _D	350	mW
Thermal resistance junction to ambient air	R _{θJA}	375	°C/W
Operating and storage temperature range	T _j , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	V _{R(BR)}	I _R = 100μA	75	-	V
Maximum Forward voltage	V _{FM}	I _F = 1mA I _F = 10mA I _F = 50mA I _F = 150mA	-	0.715 0.855 1 1.25	V
Reverse current	I _{R1}	V _R = 75V	-	2.5	μA
	I _{R2}	V _R = 20V	-	25	nA
Diode capacitance	C _D	V _R = 0V, f = 1MHz	-	2	pF
Reverse recovery time	t _{rr}	I _F = I _R = 10mA, I _{rr} = 0.1 × I _R , R _L = 100Ω	-	4	ns

Surface Mount Switching Diode



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

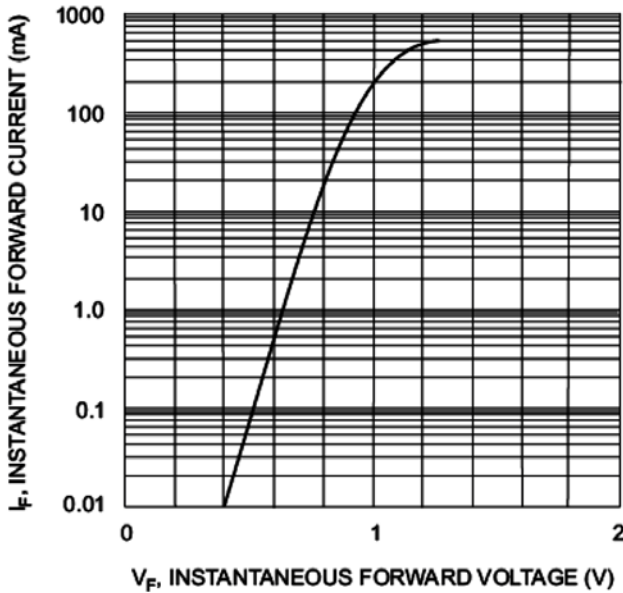


Fig. 1 Forward Characteristics

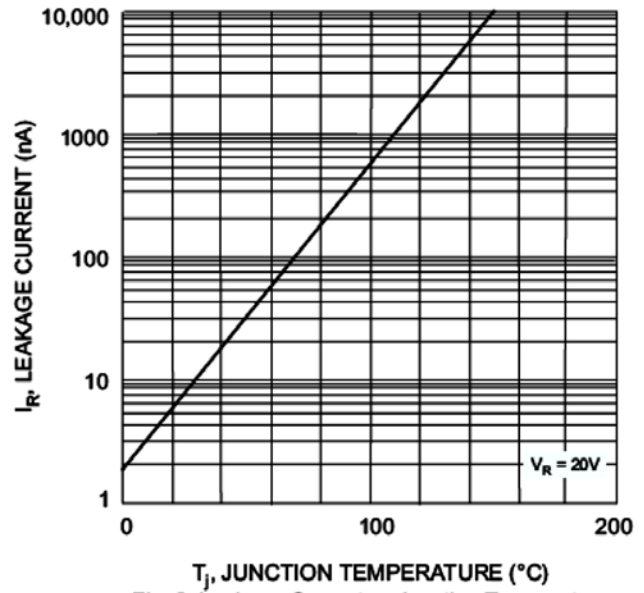
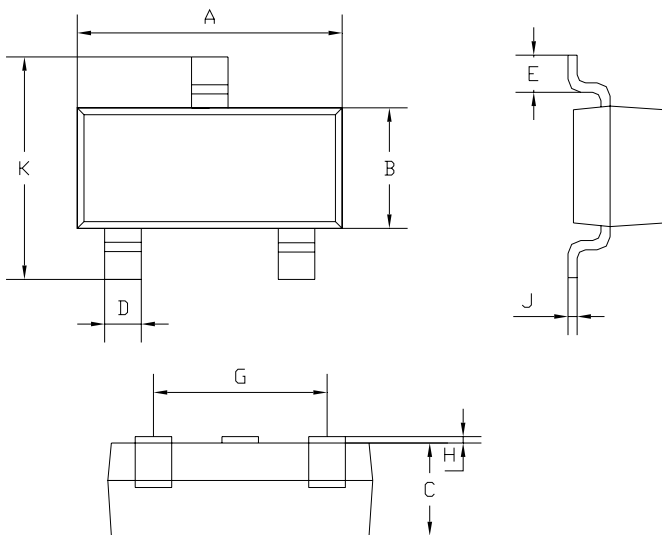


Fig. 2 Leakage Current vs Junction Temperature

Plastic surface mounted package



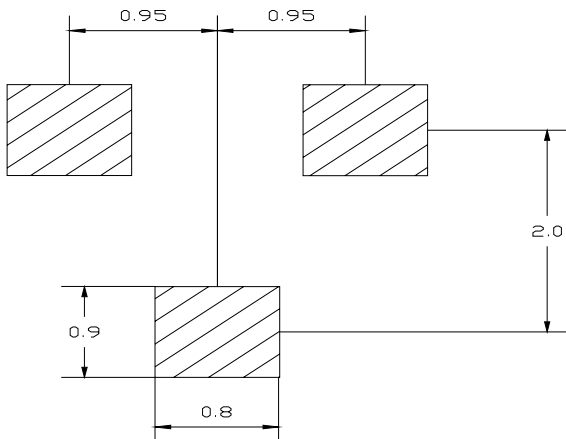
SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45
All Dimensions in mm		



Surface Mount Switching Diode



Soldering Footprint



Unit : mm

Package Information

Device	Package	Shipping
MMBD4148-7-F	SOT-23	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Surface Mount Switching Diode	MMBD4148-7-F

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