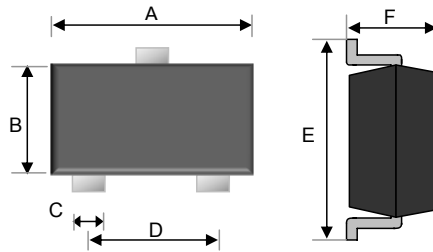


Small Signal Diode



SOT-23



Features

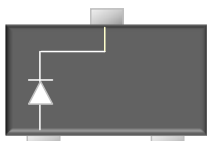
- ◇ Fast switching speed
- ◇ Surface device type mounting
- ◇ Moisture sensitivity level 1
- ◇ Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- ◇ Pb free version and RoHS compliant
- ◇ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

Mechanical Data

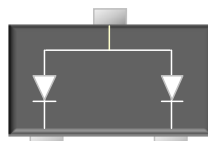
- ◇ Case :SOT-23 small outline plastic package
- ◇ Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ◇ High temperature soldering guaranteed: 260°C/10s
- ◇ Weight : 0.008gram (approximately)
- ◇ Marking Code : HC.PZ.RA.PY.

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.80	3.00	0.110	0.118
B	1.20	1.40	0.047	0.055
C	0.30	0.50	0.012	0.020
D	1.80	2.00	0.071	0.079
E	2.25	2.55	0.089	0.100
F	0.90	1.20	0.035	0.043

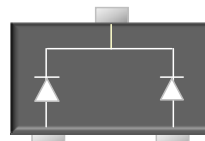
Pin Configuration



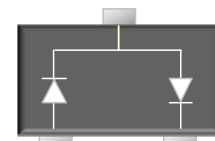
MMBD3004



MMBD3004CA



MMBD3004CC

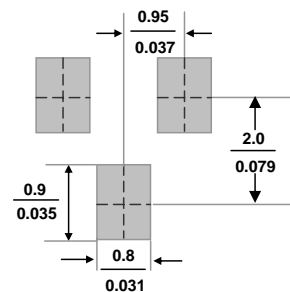


MMBD3004SE

Ordering Information

Part No.	Package	Packing Code	Packing	Marking
MMBD3004	SOT-23	RF	3K / 7" Reel	HC
MMBD3004CC	SOT-23	RF	3K / 7" Reel	PZ
MMBD3004CA	SOT-23	RF	3K / 7" Reel	RA
MMBD3004SE	SOT-23	RF	3K / 7" Reel	PY
MMBD3004	SOT-23	RFG	3K / 7" Reel	HC
MMBD3004CC	SOT-23	RFG	3K / 7" Reel	PZ
MMBD3004CA	SOT-23	RFG	3K / 7" Reel	RA
MMBD3004SE	SOT-23	RFG	3K / 7" Reel	PY

Suggested PAD Layout



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	P _D	350	mW
Repetitive Peak Reverse Voltage	V _{RRM}	350	V
Repetitive Peak Forward Current	I _{FRM}	625	mA
Mean Forward Current	I _o	225	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	4	A
Pulse width= 1μs Pulse width= 1s		1	
Thermal Resistance (Junction to Ambient)	RθJA	357	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-65 to + 150	°C

Note1. The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application.

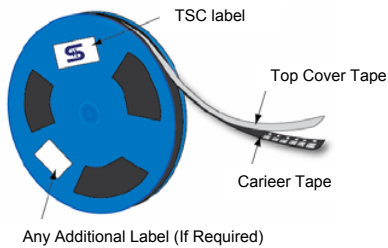
Version : A11

Small Signal Diode

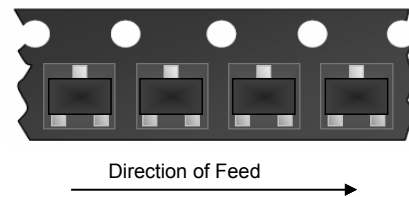
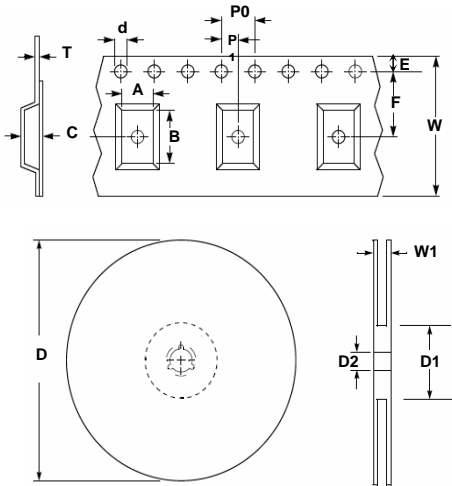
Electrical Characteristics

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_R = 100\mu A$	$V_{(BR)}$	350	-	V
Forward Voltage	$I_F = 100mA$	V_F	-	1.00	V
	$I_F = 200mA$		-	1.25	V
Reverse Leakage Current	$V_R = 240V$	I_R	-	0.1	μA
	$V_R = 240V, T_j = 150$		-	100.0	
Junction Capacitance	$V_R = 1V, f = 1.0MHz$	C_J	-	5	pF
Reverse Recovery Time	$I_F = I_R = 30mA, R_L = 100\Omega, I_{RR} = 0.1I_R$	T_{rr}	-	50.0	ns

Tape & Reel specification



Item	Symbol	Dimension(mm)
Carrier width	A	3.15 ±0.10
Carrier length	B	2.77 ±0.10
Carrier depth	C	1.22 ±0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178 ± 1
Reel inner diameter	D1	55 Min
Feed hole width	D2	13.0 ± 0.20
Sprocket hole position	E	1.75 ±0.10
Punch hole position	F	3.50 ±0.05
Sprocket hole pitch	P0	4.00 ±0.10
Embossment center	P1	2.00 ±0.05
Overall tape thickness	T	0.229 ±0.013
Tape width	W	8.10 ±0.20
Reel width	W1	12.30 ±0.20



Small Signal Diode

Rating and Sharacteristic Curves

FIG 1 Typical Forward Characteristics

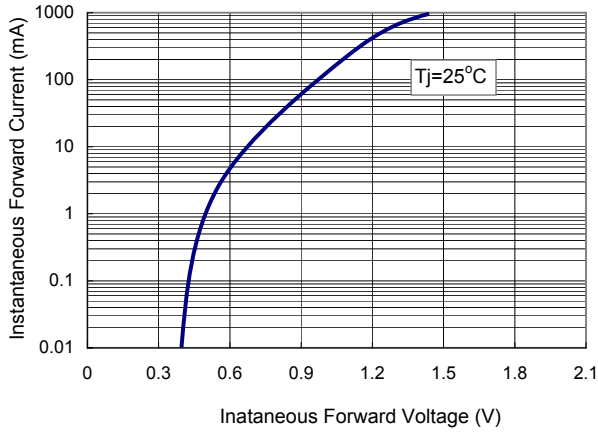


FIG 2 Typical Reverse Characteristics

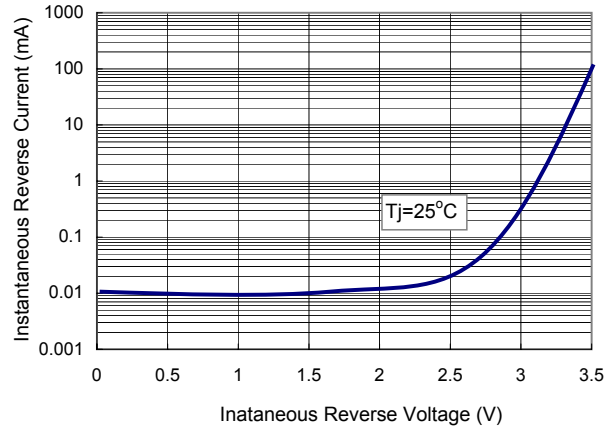


FIG 3 Admissible Power Dissipation Curve

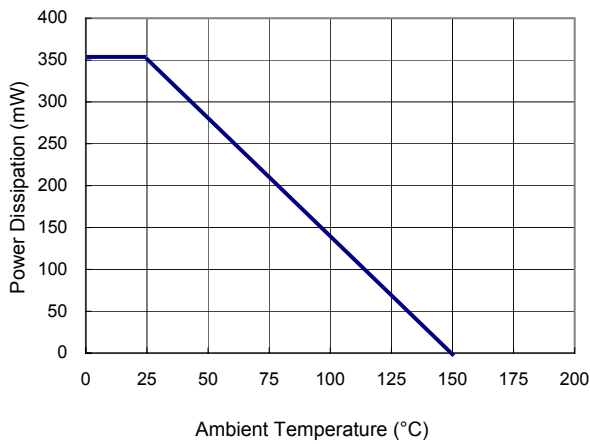


FIG4 Typical Capacitance vs Reverse Voltage

