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## CMDSH-3 SCHOTTKY BARRIER DIODE



### Features

CMDSH-3 type is a silicon Schottky diode, manufactured in a surface mount package, designed for fast switching applications requiring a low forward voltage drop.

### Schematic & Pin Configuration



### Mechanical Characteristics

- **Case:** SOD-323, Molded plastic
- **Terminals:** Plated Leads Solderable per MIL-STD-202, Method 208
- **Polarity:** Cathode Band
- **Weight:** 0.04 grams(approx)

### Maximum Ratings @<sub>T<sub>A</sub></sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Units
Peak Reverse Voltage	$V_{RRM}$	30	V
Average Forward Current	$I_o$	100	mA
Power Dissipation	$P_D$	250	mW
Power Dissipation( $T_L = 25^\circ\text{C}$ )	$P_D$	833	mW
Peak Forward Surge Current (tp=8.3ms)	IFSM	750	mA
Operating Junction Temperature Range	$T_J$	-65 to +150	°C
Storage Temperature Range	$T_{STG}$	-65 to +150	°C
Thermal Resistance	$R_{\theta JA}$	500	°C/W
Thermal Resistance	$R_{\theta JL}$	150	°C/W

Note: 1. Valid provided that terminals are kept at ambient temperature.

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

Characteristics	Symbol	Condition	Min	Typ.	Max.	Units
Forward Voltage Drop*	$V_F$	@ $I_F = 50\text{mA}, T_A = 25^\circ\text{C}$ @ $I_F = 100\text{mA}, T_A = 25^\circ\text{C}$	-	-	0.55 0.80	V
Reverse Recovery Voltage*	$V_{BR}$	@ $I_F = 100\mu\text{A}$	30	-	-	V
Reverse Current*	$I_R$	@ $V_R = 25\text{V}, T_J = 25^\circ\text{C}$	-	-	10	$\mu\text{A}$
Typical Junction Capacitance	$C_j$	@ $V_R = 10.0\text{V}, T_C = 25^\circ\text{C}, f_{SIG} = 1\text{MHz}$	-	7.0	-	pF

\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

**Ratings and Characteristics Curves**

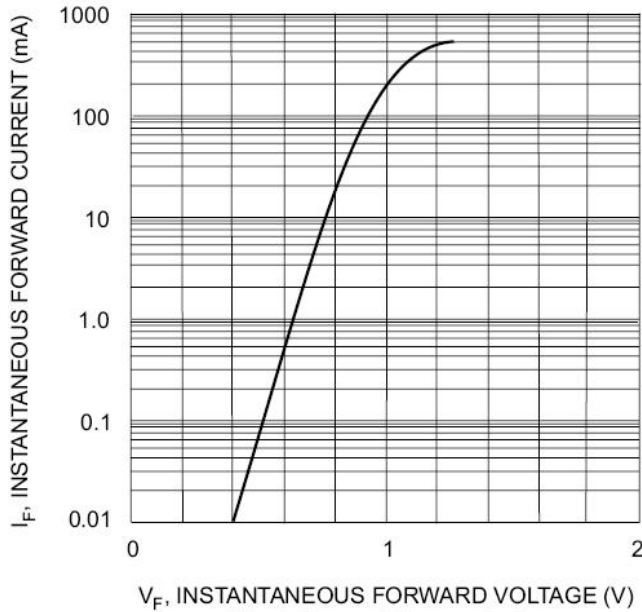


Fig. 1 Forward Characteristics

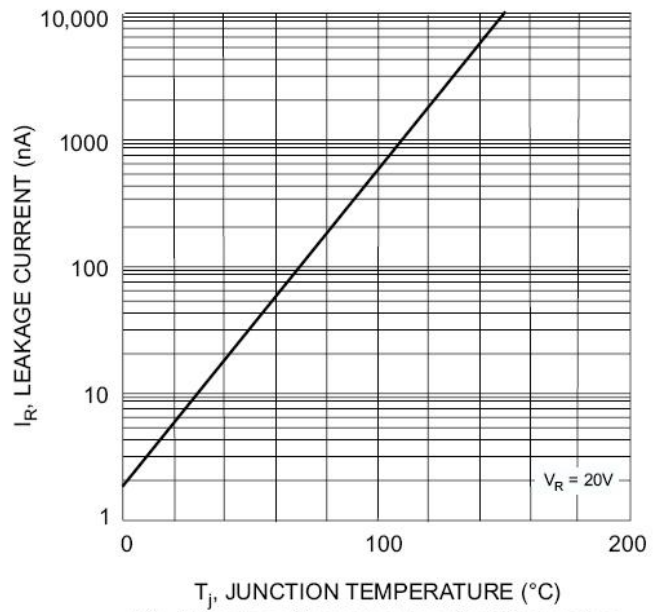


Fig. 2 Leakage Current vs Junction Temperature

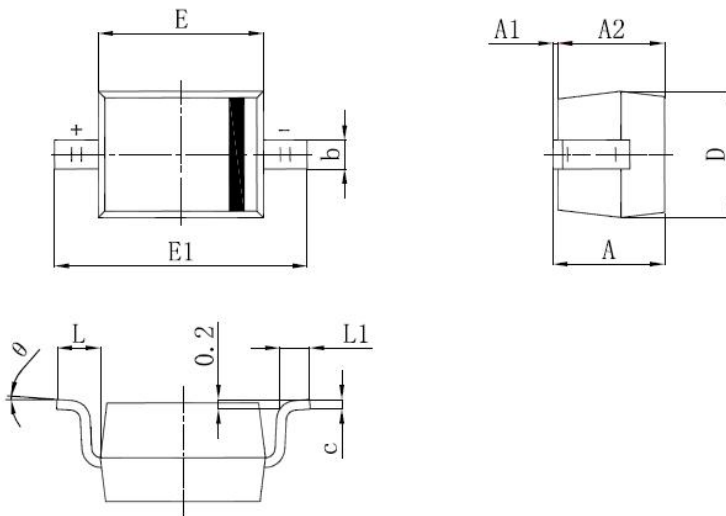
**Ordering Information**

Device	Package	Shipping
CMDSH-3	SOD-323 (Pb-Free)	3000pcs / reel

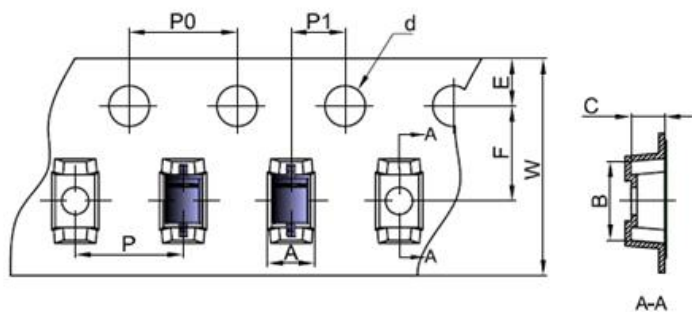
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**


S1 = Marking Code

**Mechanical Dimensions SOD-323**


SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	-	1.000	-	0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

**Carrier Tape Specification SOD-323**


SYMB OL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30



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