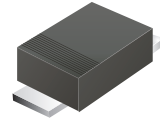


CDBMS140LL-HF

Reverse Voltage: 40 Volts
Forward Current: 1.0 Amp
RoHS Device
Halogen Free

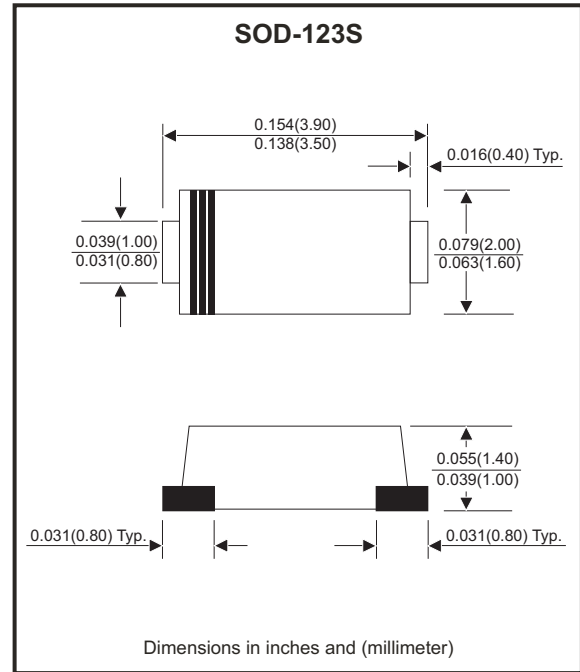


Features

- Low power loss, high efficiency.
- High current capability, Low forward voltage drop.
- High surge capability.
- Guard ring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

Mechanical data

- Epoxy: UL94V-0 rated flame retardant.
- Case: SOD-123S, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.018 grams (Approx.)



Maximum Ratings and Electrical Characteristics

Ratings at Ta=25°C unless otherwise noted.
 Single phase, half wave, 60Hz, resistive or inductive loaded.
 For capacitive load, derate current by 20% .

Parameter	Symbol	CDBMS140LL-HF	Units
Max. Repetitive peak reverse voltage	V_{RRM}	40	V
Max. DC blocking voltage	V_R	40	V
Max. RMS voltage	V_{RMS}	28	V
Max. forward voltage @1.0A, Ta=25°C	V_F	0.35	V
Junction Temperature	T_J	-55 to +100	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Units
Forward rectified current		I_o			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			50	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^\circ C$	I_R			1.0	mA
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		130		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse Voltage	C_J		130		pF
Storage temperature		T_{STG}	-55		+150	°C

Company reserves the right to improve product design , functions and reliability without notice.

REV: A

RATING AND CHARACTERISTIC CURVES (CDBMS140LL-HF)

Fig.1 - Typical Forward Current Derating Curve

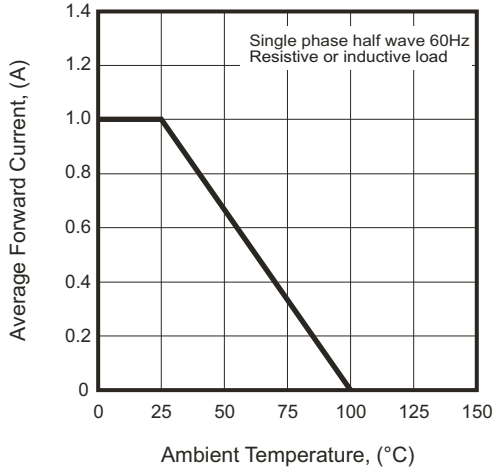


Fig.2 - Typical Forward Characteristics

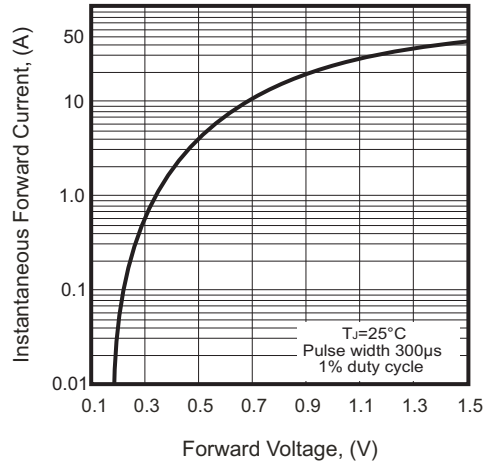


Fig.3 - Maximum Non-repetitive Forward Surge Current

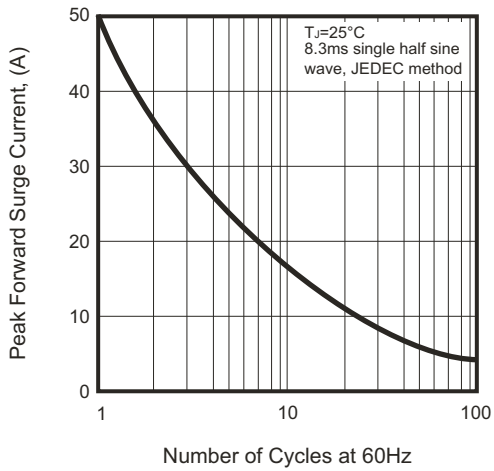


Fig.4 - Typical Junction Capacitance

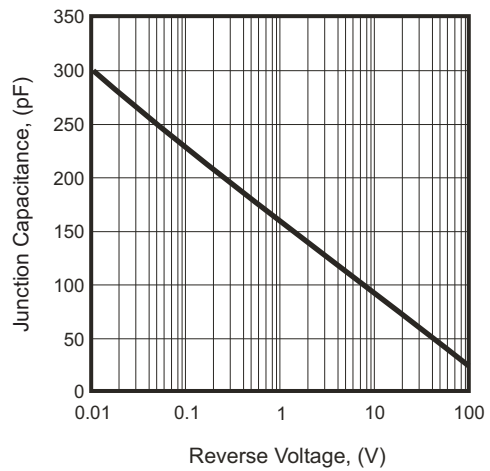
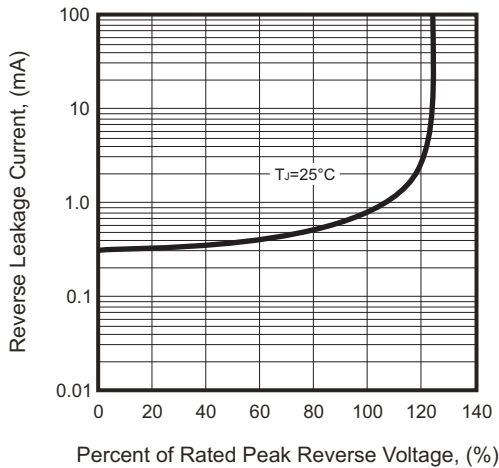
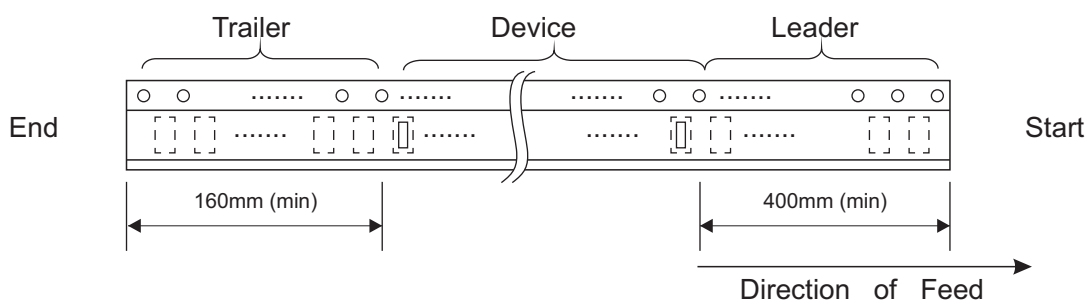
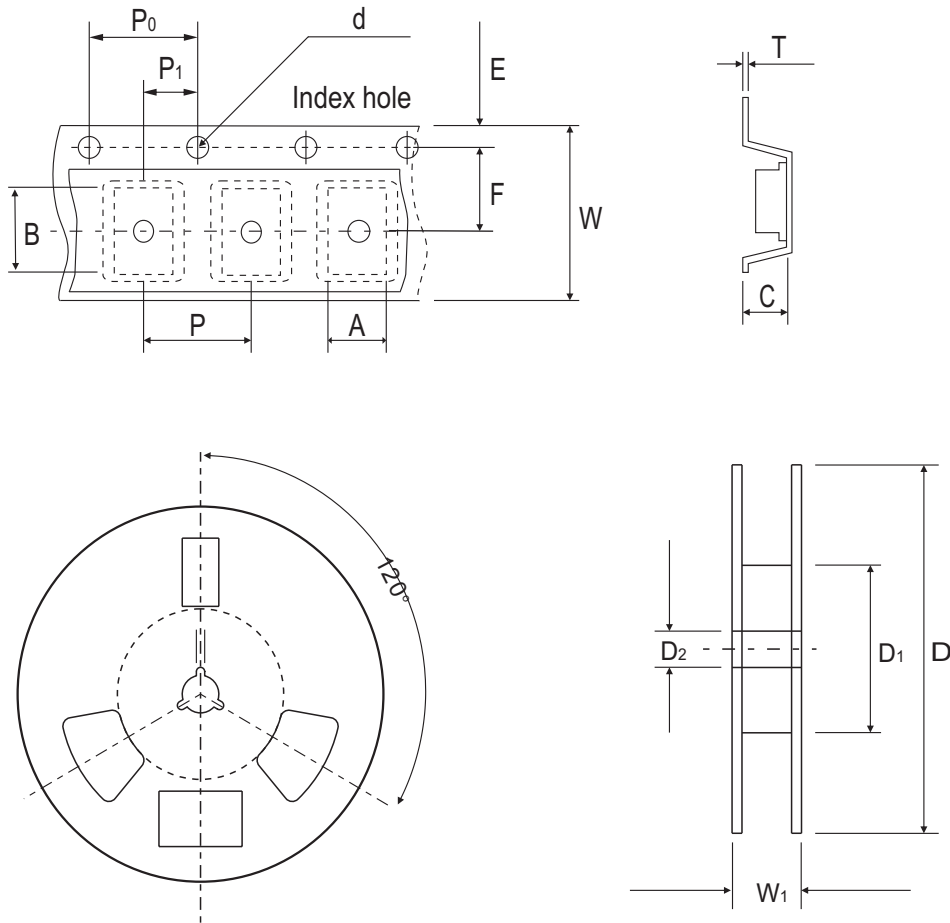


Fig.5 - Typical Reverse Characteristics



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Reel Taping Specification



SOD-123S	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.00 ± 0.10	3.75 ± 0.10	1.10 ± 0.10	1.50 ± 0.10	178 ± 0.30	60.0 Min.	13.50 ± 0.20
	(inch)	0.079 ± 0.004	0.148 ± 0.004	0.043 ± 0.004	0.059 ± 0.004	7.008 ± 0.012	2.362 Min.	0.532 ± 0.008

SOD-123S	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.30	12.00 Min.
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 ± 0.012	0.472 Min.

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Marking Code

Part Number	Marking Code
CDBMS140LL-HF	LL4

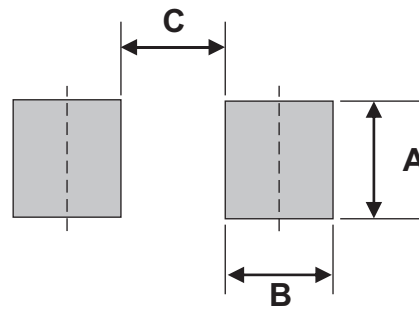


||| = Cathod band

XXX = Product type marking code

Suggested PAD Layout

SIZE	SOD-123S	
	(mm)	(inch)
A	1.10	0.043
B	1.00	0.039
C	2.00	0.079



Note:

1.The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123S	3,000	7