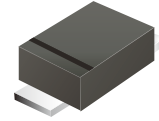


CDBMS540LR-HF

Forward current: 5 A
Reverse voltage: 40 V

RoHS Device
Halogen Free

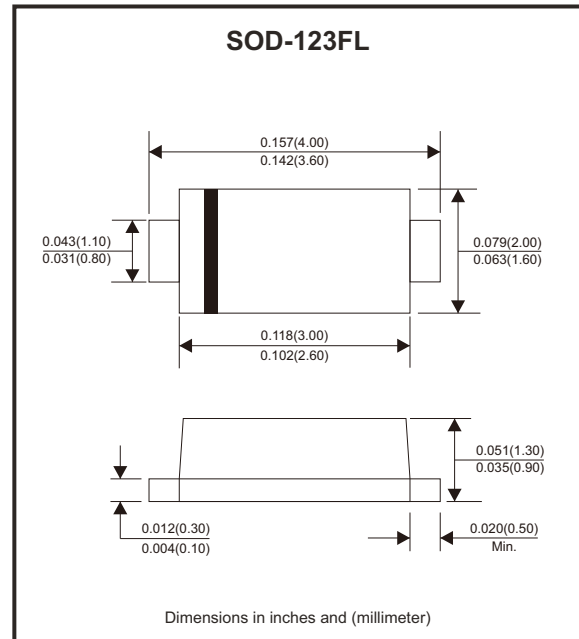


Features

- For surface mounted applications.
- Built-in strain relief, ideal for automated placement.
- Low forward voltage.
- High forward surge current capability.

Mechanical Data

- Case: SOD-123FL, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Polarity symbol marking on body.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings (at Ta=25°C, unless otherwise noted)

Parameter	Symbol	CDBMS540LR-HF	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	40	V
Maximum RMS voltage	V _{RMS}	28	V
Maximum DC blocking voltage	V _{DC}	40	V
Maximum average forward rectified current at T _L =90°C	I _{F(AV)}	5	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	70	A
Typical thermal resistance	R _{θJA} R _{θJL}	70 20	°C/W
Operating junction temperature range	T _J	-55 to +125	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Note: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.4" x 0.4" (10mm x 10mm) copper pad areas.

Electrical Characteristics (at Ta=25°C, unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Maximum instantaneous forward voltage	at 4.0A	V _F		0.43	0.45	V
	at 5.0A			0.47	0.50	
Maximum DC reverse current at rated DC blocking voltage	T _A = 25°C	I _R		20	200	μA
	T _A = 100°C			5	50	mA

Rating and Characteristic Curves (CDBMS540LR-HF)

Fig.1 - Derating Curve Output Rectified Current

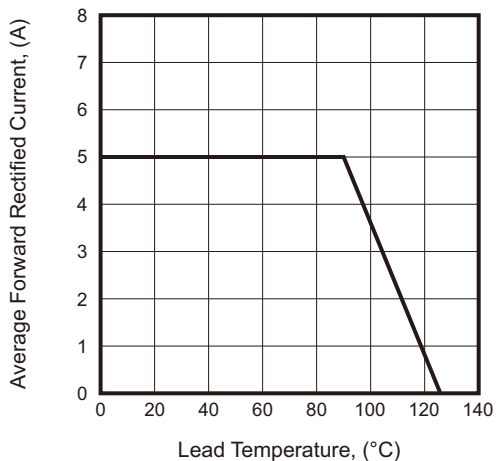


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

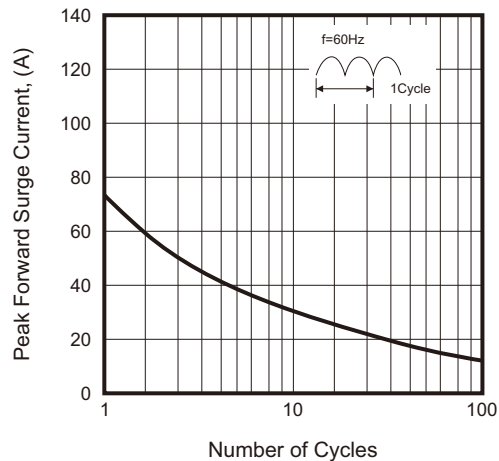


Fig.3 - Typical Forward Voltage Characteristics

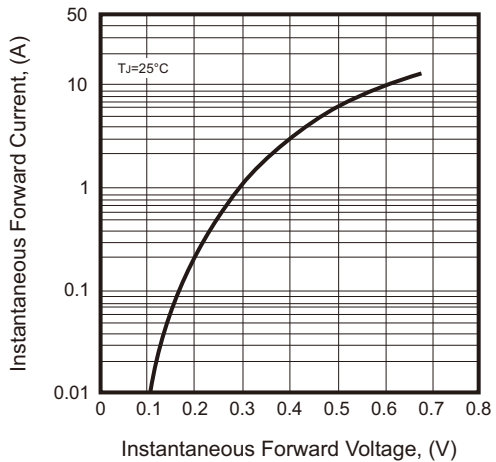
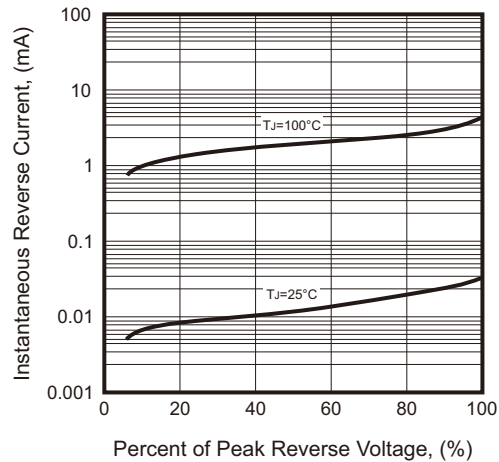
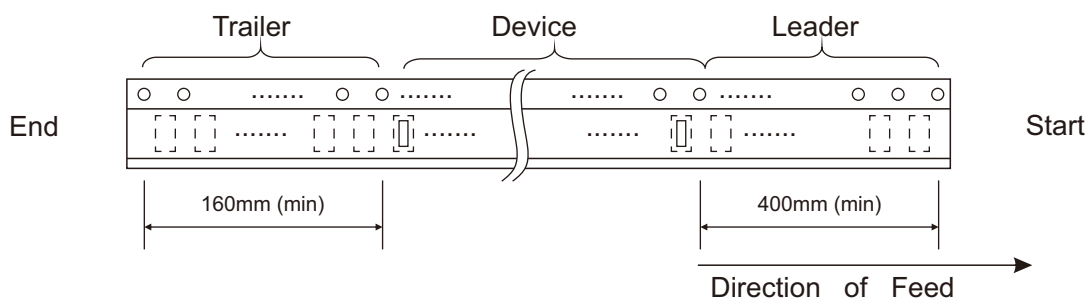
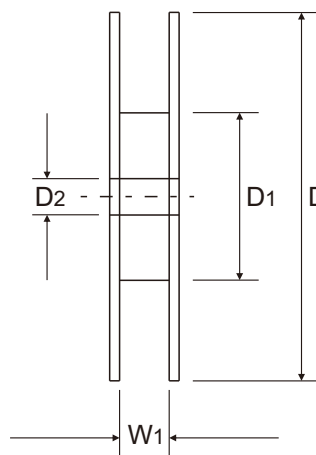
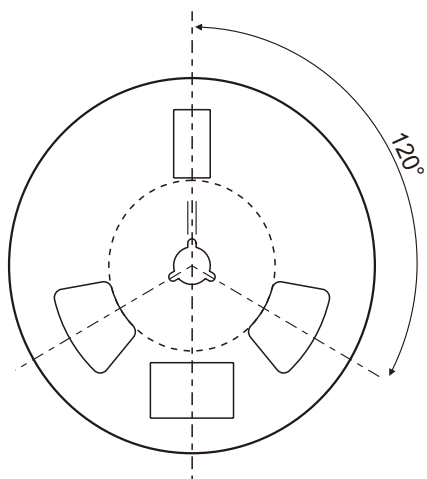
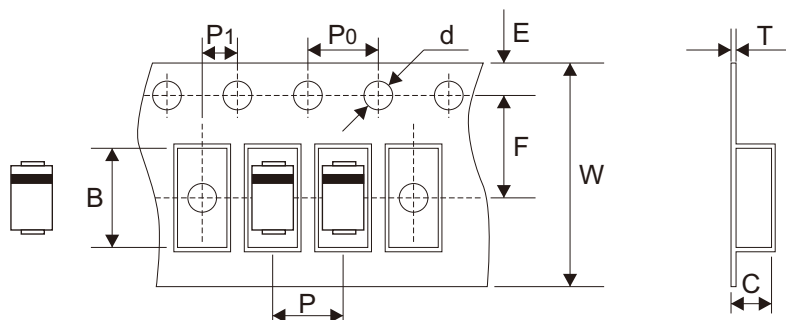


Fig.4 - Typical Reverse Leakage Characteristics



Reel Taping Specification

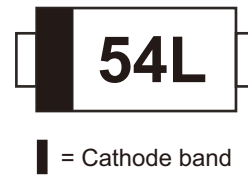


SOD-123FL	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.15 ± 0.10	3.95 ± 0.10	1.35 ± 0.10	1.55 ± 0.10	178.00 ± 2.00	54.00 ± 2.00	13.50 ± 2.00
	(inch)	0.085 ± 0.004	0.156 ± 0.004	0.053 ± 0.004	0.061 ± 0.004	7.008 ± 0.079	2.126 ± 0.079	0.531 ± 0.079

SOD-123FL	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.25 ± 0.10	8.00 ± 0.10	8.40 ± 2.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.010 ± 0.004	0.315 ± 0.004	0.331 ± 0.079

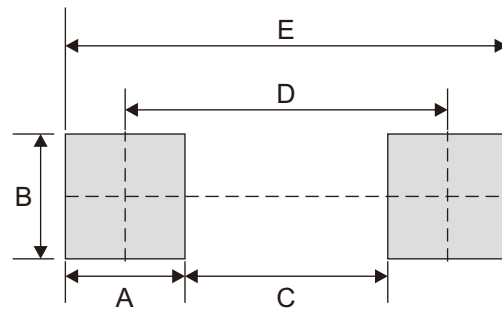
Marking Code

Part Number	Marking Code
CDBMS540LR-HF	54L



Suggested P.C.B. PAD Layout

SIZE	SOD-123FL	
	(mm)	(inch)
A	1.15	0.045
B	1.20	0.047
C	1.95	0.077
D	3.10	0.122
E	4.25	0.167



Standard Packaging

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