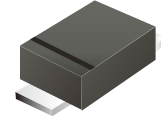


CDBTS160R-HF

RoHS Device
Halogen Free



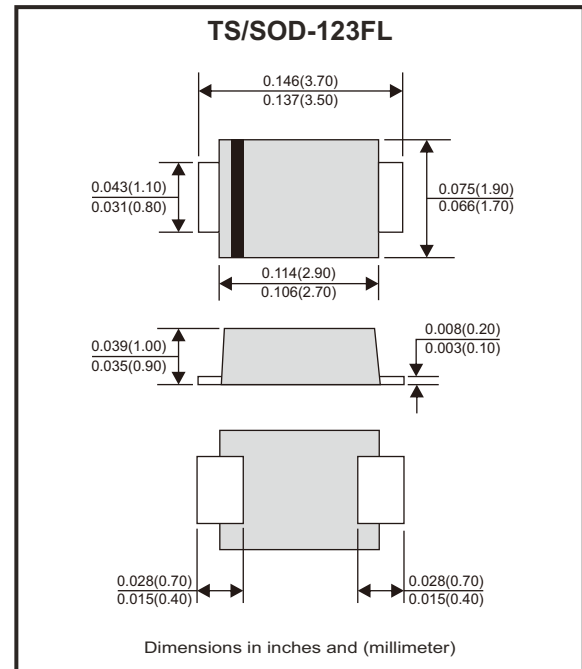
Features

- Low reverse current.
- Low forward voltage.
- Designed for mounting on small surface.

Mechanical data

- Case: SOD-123FL, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

Circuit Diagram



Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Reverse voltage		V_R	60	V
Forward current		I_F	1	A
Peak forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	30	A
Operating temperature range		T_J	-50 to +150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-50 to +150	$^\circ\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 1\text{A}$	V_F			650	mV
Reverse current	$V_R = 60\text{V}$	I_R			100	μA
Reverse breakdown voltage	$I_R = 1\text{mA}$	V_{BR}	65			V
Junction capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J		127		pF

Typical Rating and Characteristic Curves (CDBTS160R-HF)

Fig.1 - Forward Characteristics

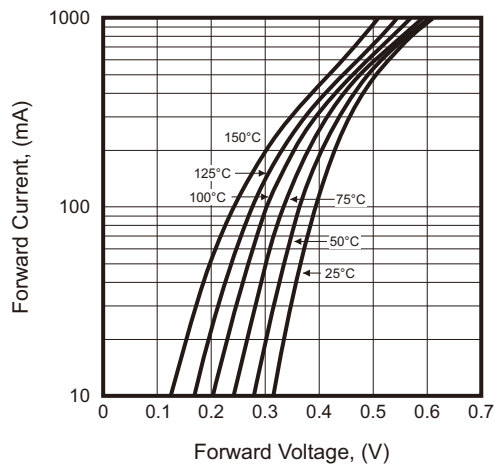


Fig.2 - Reverse Characteristics

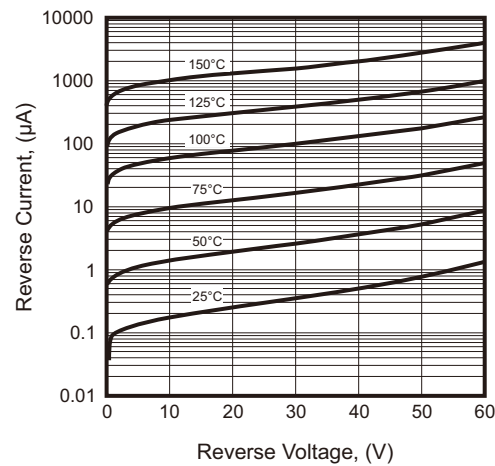


Fig.3 - Capacitance Between Terminals Characteristics

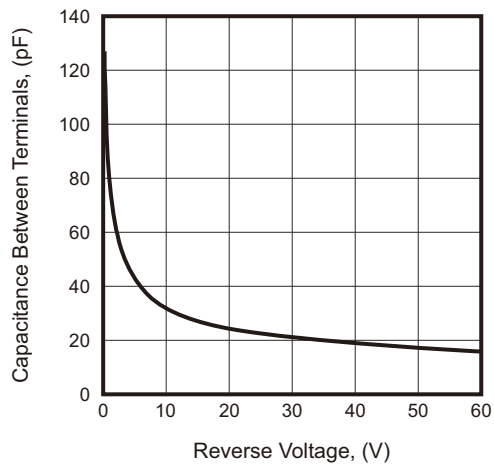
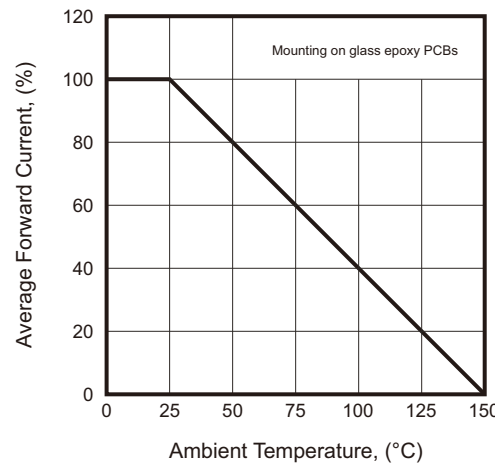
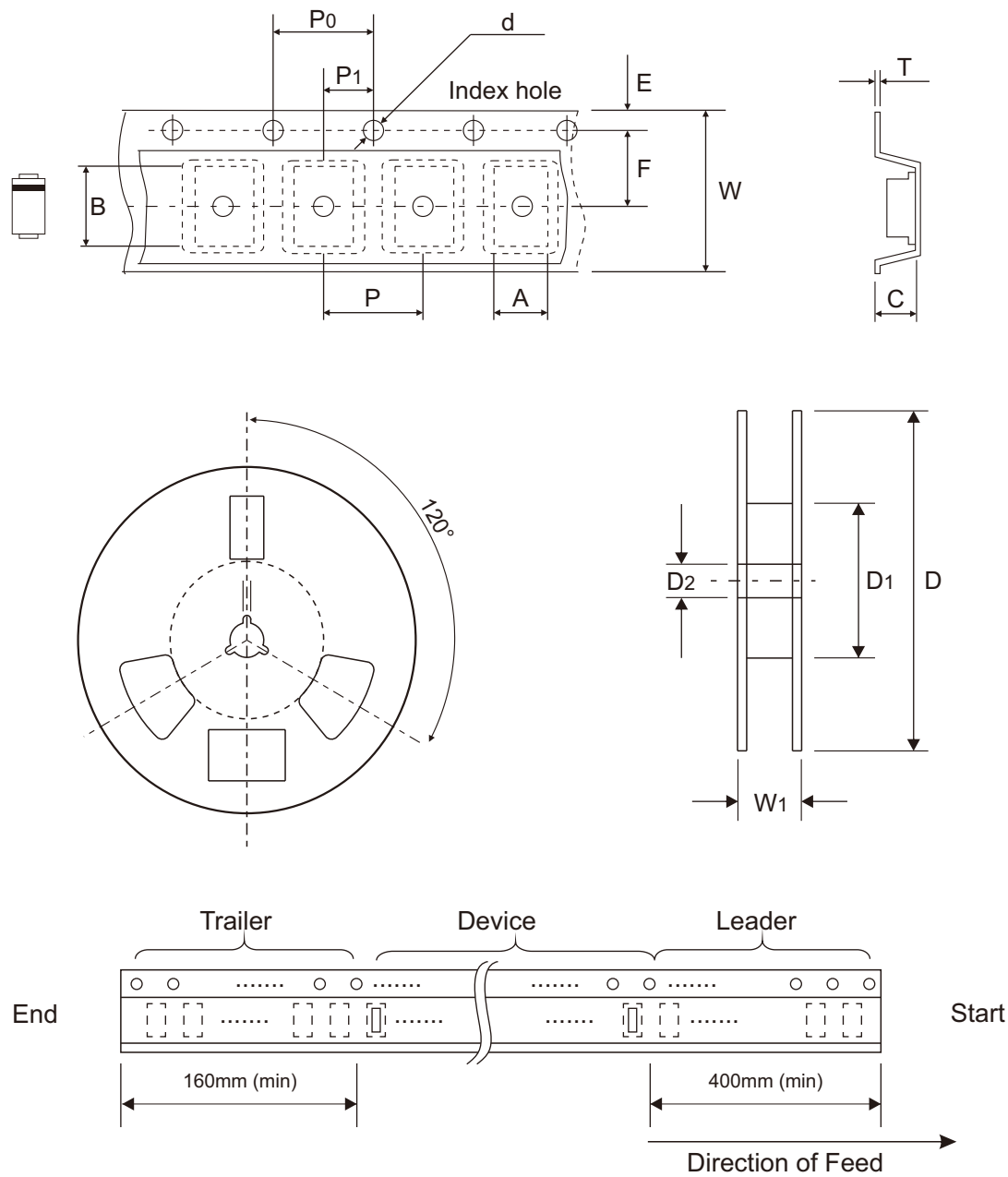


Fig.4 - Current Derating Curves



Reel Taping Specification



TS/ SOD-123FL	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.05 ± 0.10	3.85 ± 0.10	1.25 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.081 ± 0.004	0.152 ± 0.004	0.049 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

TS/ SOD-123FL	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.05	8.00 ± 0.30	12.00 + 0.50 - 0.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.002	0.315 ± 0.012	0.472 + 0.020 - 0.000

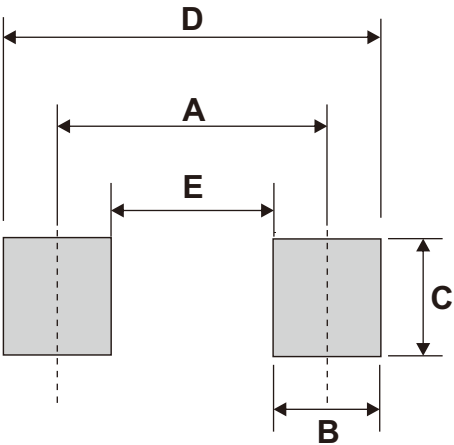
Marking Code

Part Number	Marking Code
CDBTS160R-HF	16



Suggested P.C.B. PAD Layout

SIZE	TS/SOD-123FL	
	(mm)	(inch)
A	3.10	0.122
B	1.15	0.045
C	1.25	0.048
D	4.25	0.167
E	1.95	0.077



Standard Packaging

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