

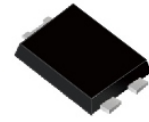
## ACEFHA503-HF

Reverse Voltage: 200 V

Forward Current: 5 A

RoHS Device

Halogen Free

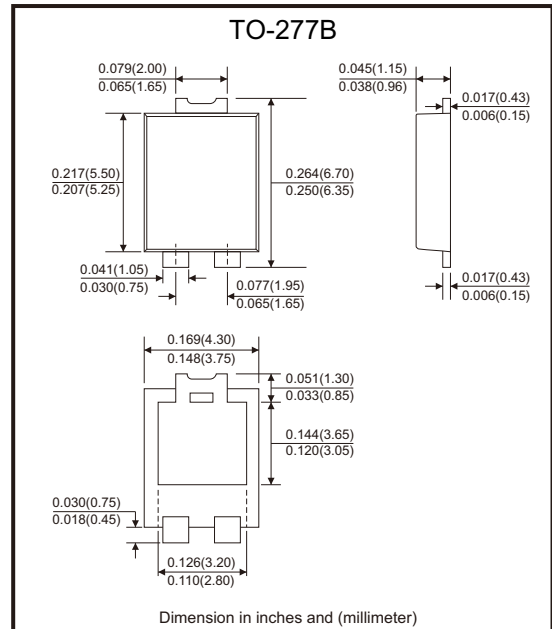


### Features

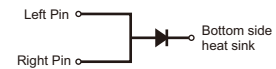
- Low forward voltage drop.
- High forward surge current capability.
- Low-profile SMD ideal for automated manufacturing.
- AEC-Q101 Qualified.

### Mechanical data

- Case: TO-277B, molded plastic.
- Epoxy: UL flammability classification rating 94V-0.
- Terminals: Solder plated, solderable per MIL-STD-202, method 208.
- Polarity: Color band denotes cathode end.



### Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	$V_{RRM}$	200	V
RMS reverse voltage	$V_{RMS}$	140	V
DC blocking voltage	$V_{DC}$	200	V
Maximum average forward output current	$I_{F(AV)}$	5	A
Peak forward surge current, 8.3ms single half sine-wave	$I_{FSM}$	100	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	60	°C/W
	$R_{\theta JC}$	20	
	$R_{\theta JL}$	15	
Operating junction temperature range	$T_J$	-55 ~ +150	°C
Storage temperature range	$T_{STG}$	-55 ~ +150	°C

Notes: 1. Device mounted on P.C.B. with 10mm x 20mm x 0.1mm copper pad areas.

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Instantaneous forward voltage	$I_F = 5A$	$V_F$			0.95	V
Reverse current	Rated $V_R$ , @ $T_A = 25^\circ C$ @ $T_A = 125^\circ C$	$I_R$			5	$\mu A$
					300	
Reverse recovery time	$I_F = 0.5A, I_{RM} = 1A, I_{R(REC)} = 0.25A$	$t_{rr}$			25	ns

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

REV:A

## Rating and Characteristics Curves (ACEFHA503-HF)

Fig.1 - Forward Current Derating Curve

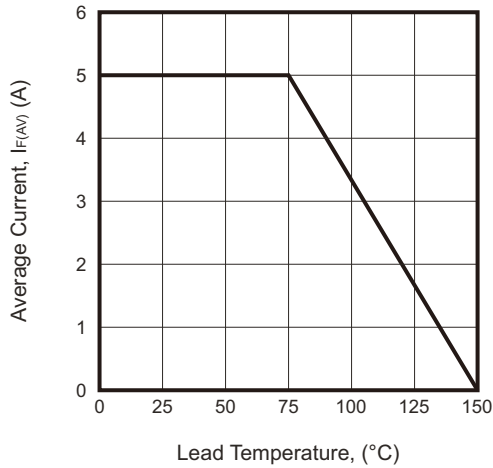


Fig.2 - Surge Current Derating Curve

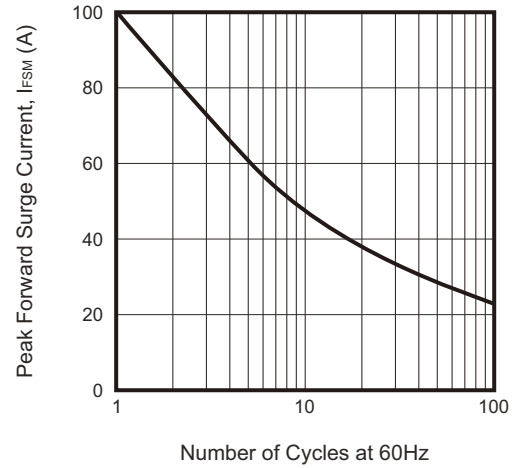


Fig.3 - Typical Forward Voltage Characteristics

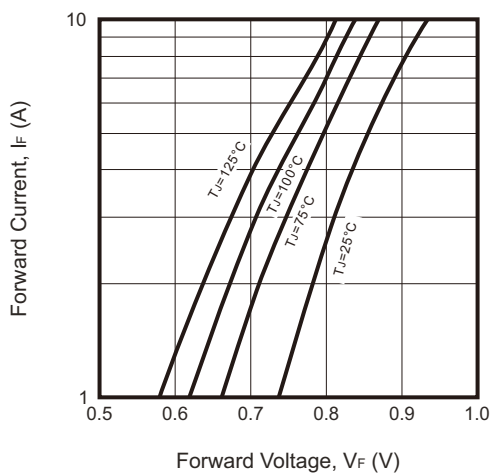
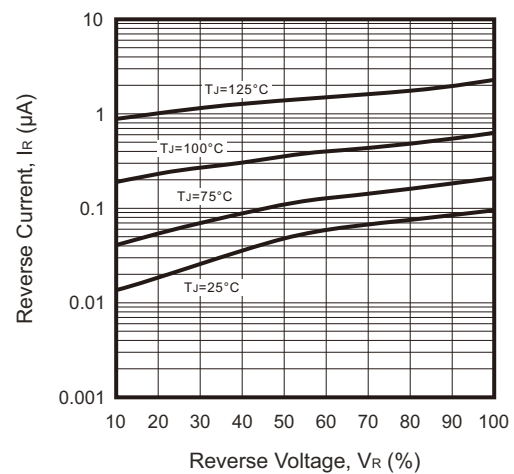
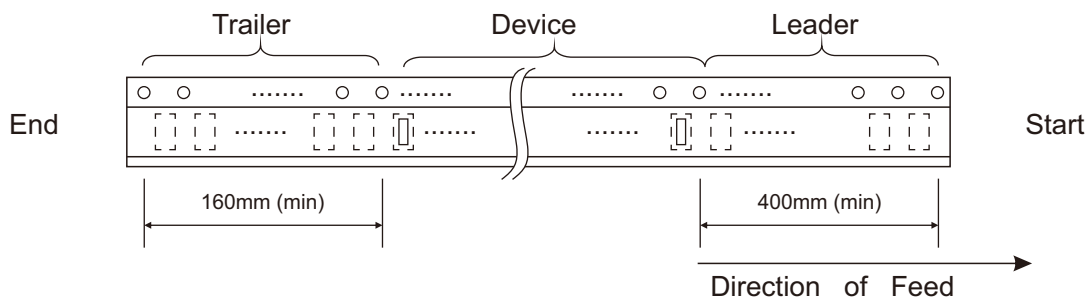
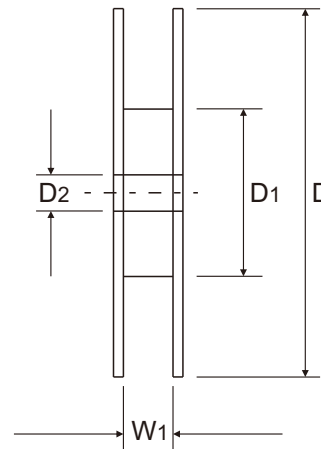
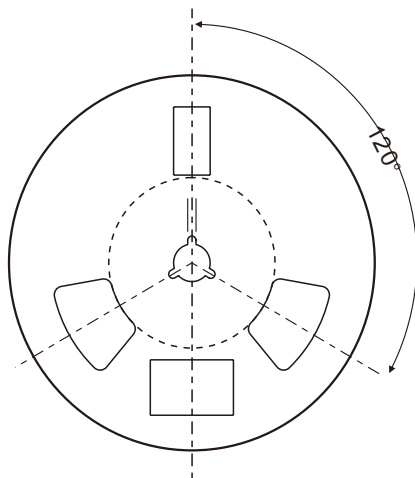
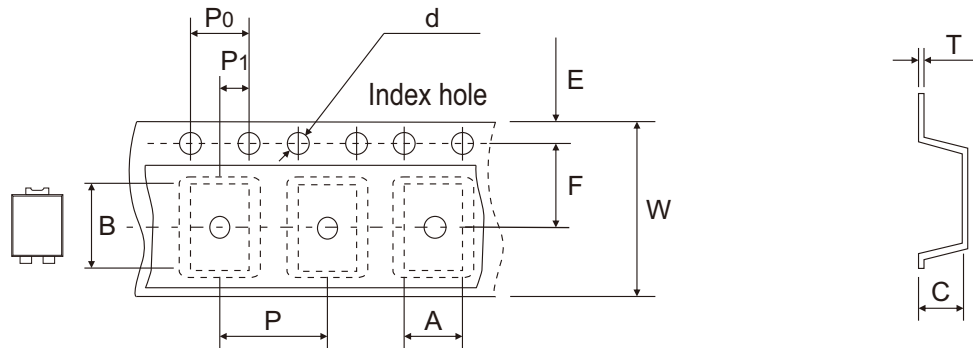


Fig.4 - Typical Reverse Characteristics



## Reel Taping Specification



TO-277B	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	4.30 ± 0.10	6.80 ± 0.10	1.50 ± 0.10	1.55 ± 0.10	330 ± 1.00	75.00 ± 1.00	13.50 ± 0.50
	(inch)	0.169 ± 0.004	0.268 ± 0.004	0.059 ± 0.004	0.061 ± 0.004	12.992 ± 0.039	2.953 ± 0.039	0.531 ± 0.020

TO-277B	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.05	12.00 ± 0.10	17.00 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.472 ± 0.004	0.669 ± 0.039

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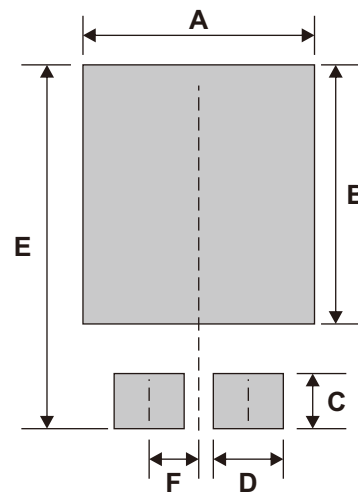
## Marking Code

Part Number	Marking Code
ACEFHA503-HF	D5PHED



## Suggested P.C.B. PAD Layout

SIZE	TO-277B	
	(mm)	(inch)
A	4.20	0.165
B	4.70	0.185
C	1.27	0.050
D	1.00	0.039
E	6.60	0.260
F	0.90	0.035



Note: 1. The pad layout is for reference purpose only.

## Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
TO-277B	4,000	13