

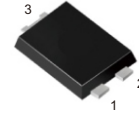
ACDBHA1060-HF

Reverse Voltage: 60V

Forward Current: 10A

RoHS Device

Halogen Free



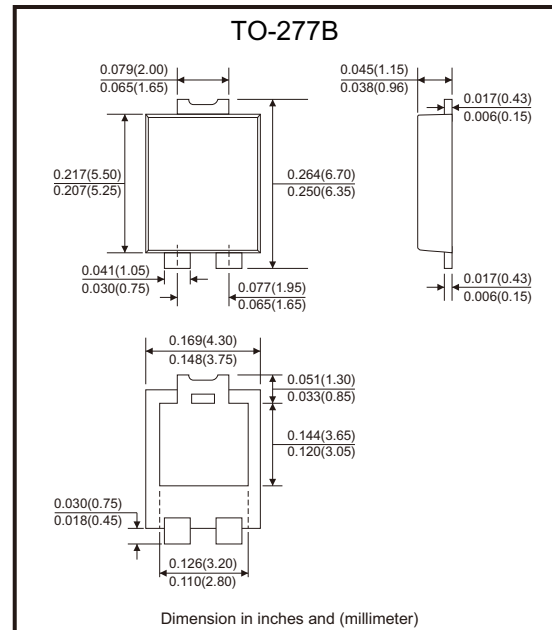
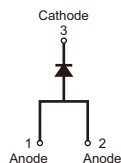
Features

- Metal silicon junction, majority carrier conduction.
- High forward surge current capability.
- Low forward voltage drop.
- High temperature soldering guaranteed:
260°C @ 10s.
- Robust guarding for over voltage protection.
- AEC-Q101 Qualified.

Mechanical data

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

Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive reverse voltage	V _{RRM}	60	V
RMS reverse voltage	V _{RMS}	42	V
DC blocking voltage	V _{DC}	60	V
Maximum average forward output current	I _O	10	A
Peak forward surge current, 8.3ms single half sine-wave	I _{FSM}	250	A
Operating junction temperature range	T _J	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Thermal Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Typical thermal resistance (Note 1)	R _{θJA}		60		°C/W
	R _{θJC}		20		
	R _{θJL}		15		

Notes: 1. Device mounted on PCB 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 (Note 1)	IF = 10A, @TA = 25°C	VF			0.53	V
Reverse current (Note 2)	Rated VR, @TJ = 25°C	IR			200	μA
	@TJ = 100°C				20	mA

Notes: 1. Pulse test: 300μs pulse width, 1% duty cycle.
2. Pulse test: pulse width 40ms.

Typical Rating and Characteristics Curves (ACDBHA1060-HF)

Fig.1 - Forward Current Derating Curve

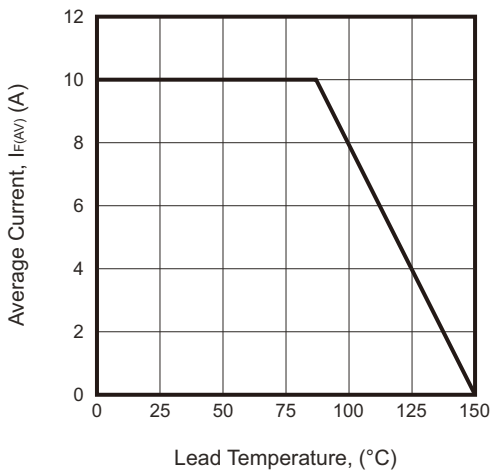


Fig.2 - Surge Current Derating Curve

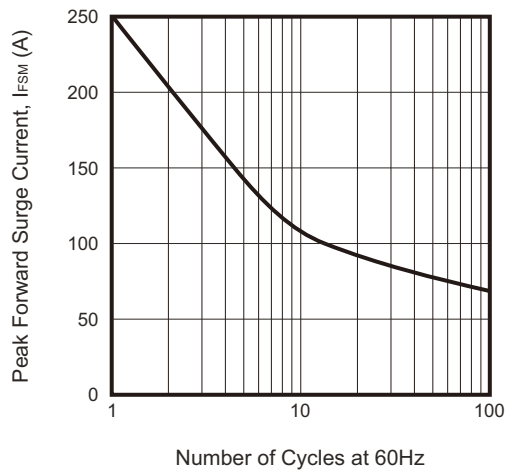


Fig.3 - Typical Forward Voltage Characteristics

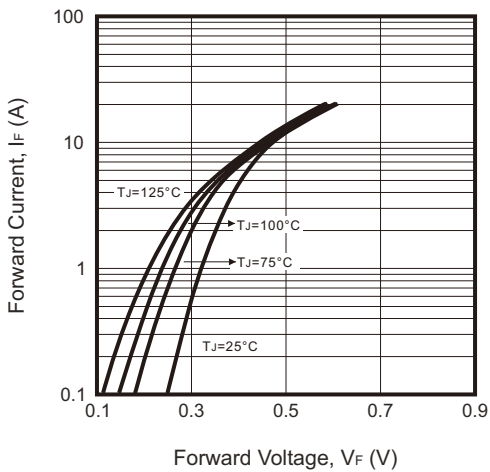
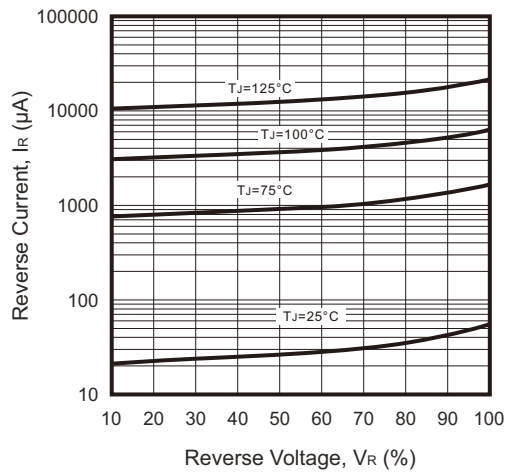
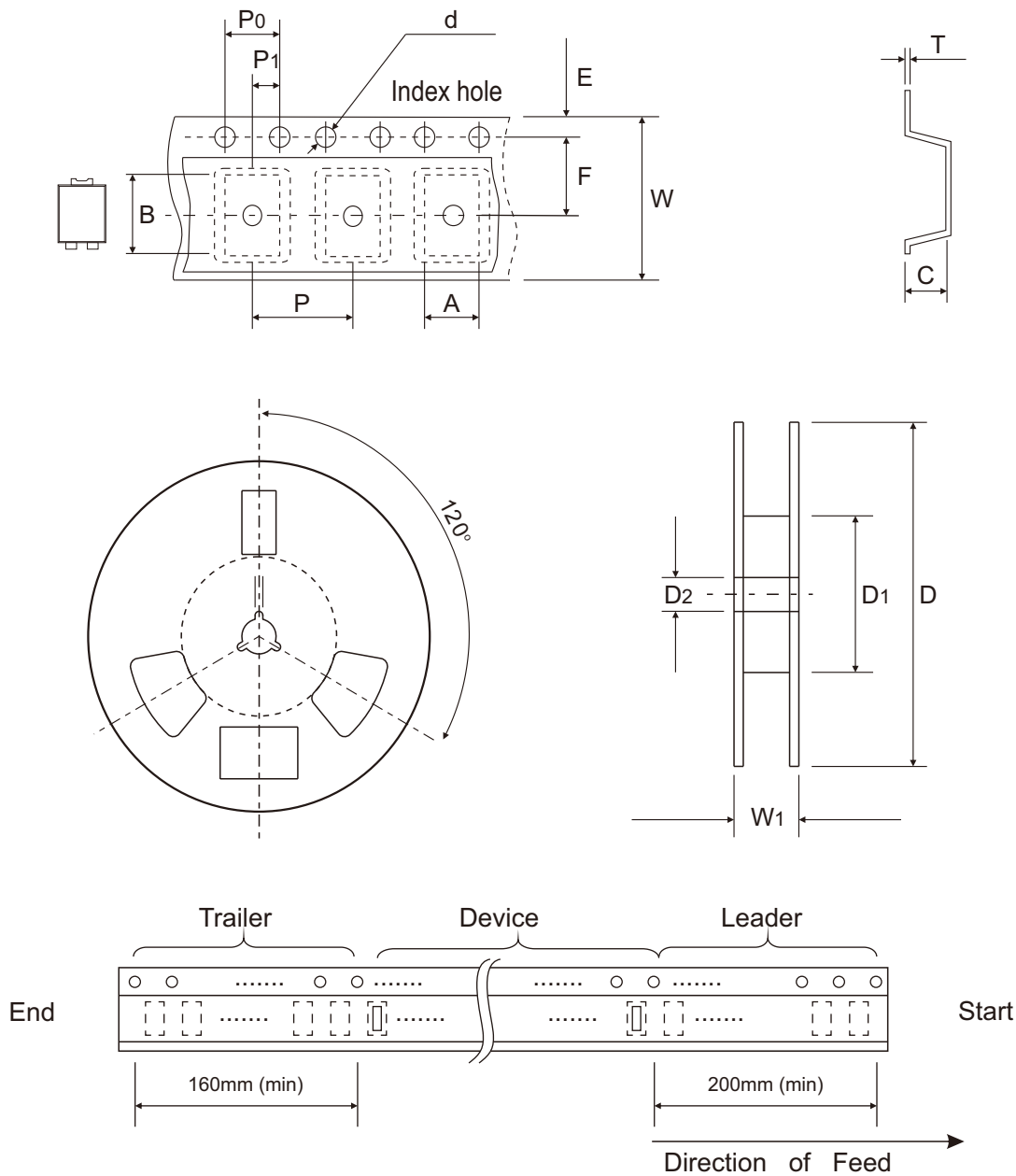


Fig.4 - Typical Reverse Characteristics



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D1	D2
TO-277B	(mm)	4.30 ± 0.10	6.80 ± 0.10	1.50 ± 0.10	1.55 ± 0.10	330.00 ± 1.00	100.00 ± 1.00	13.27 ± 0.50
	(inch)	0.169 ± 0.004	0.268 ± 0.004	0.059 ± 0.004	0.061 ± 0.004	12.992 ± 0.039	3.937 ± 0.039	0.522 ± 0.020

	SYMBOL	E	F	P	P0	P1	T	W	W1
TO-277B	(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	21.20 ± 2.00
	(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	0.835 ± 0.079

Marking Code

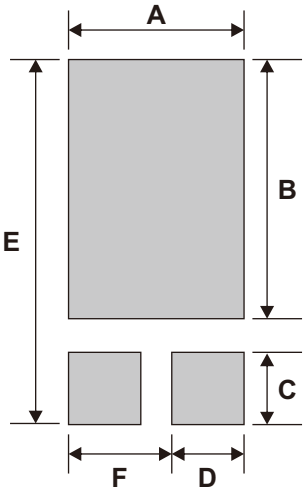
Part Number	Marking Code
ACDBHA1060-HF	D10S60L



xxx = Control code

Suggested P.C.B. PAD Layout

SIZE	TO-277B	
	(mm)	(inch)
A	3.40	0.134
B	4.80	0.189
C	1.40	0.055
D	1.40	0.055
E	7.05	0.278
F	2.00	0.079



Standard Packaging

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