

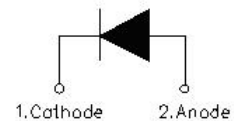
PFL1006 PFL1006F PFL1006B Super Fast Recovery Rectifiers

Features:

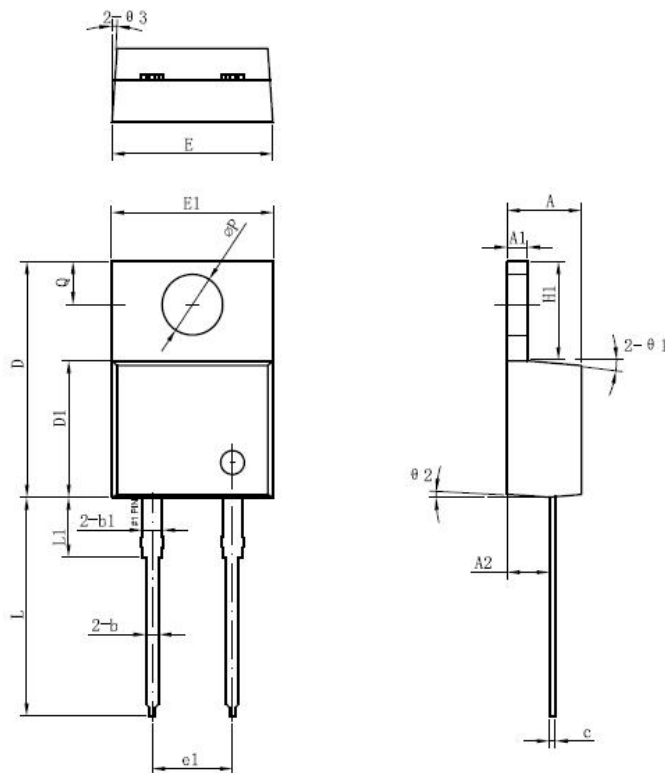
- Superfast recovery times-epitaxial construction
- Low forward voltage, high current capability
- Hermetically sealed
- Low leakage
- High surge capacity
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data:

- Case: TO-220AC, ITO-220AC, D²PAK package
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026

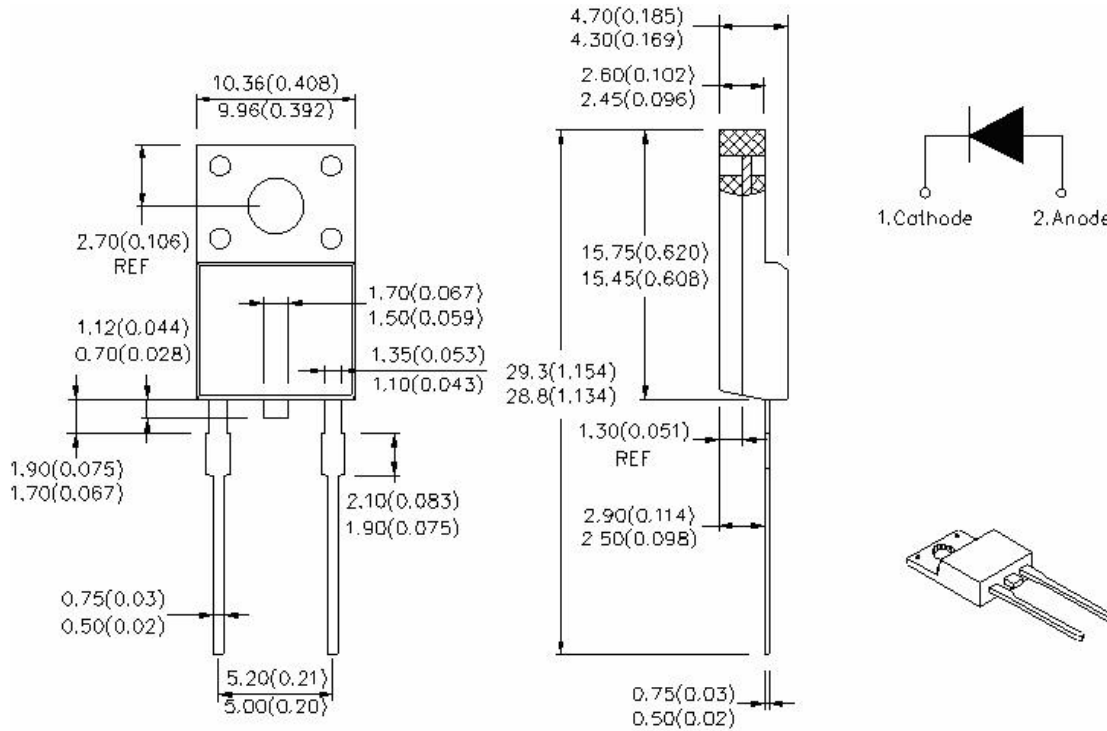


Mechanical Dimensions: In Inches / mm

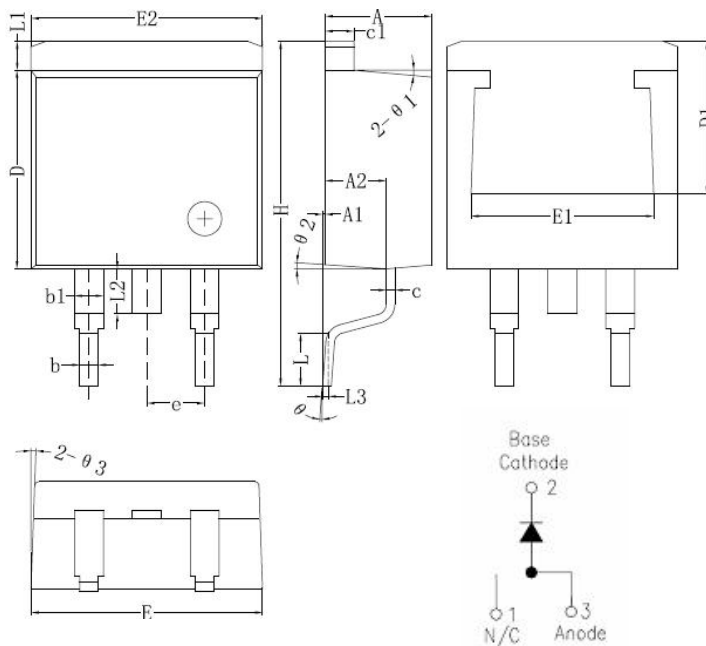


Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.55	4.70	4.85
A1	1.17	1.27	1.37
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
D	14.64	14.94	15.24
D1	8.55	8.07	8.85
E	10.01	10.16	10.31
E1	9.98	10.18	10.38
e1		5.08	
H1	6.04	6.24	6.44
L	13.00	13.86	14.08
L1		3.80	
ΦP	3.74	3.84	4.04
Q	2.54	2.74	2.94
$\theta 1$		5°	
$\theta 2$		4°	
$\theta 3$		4°	

TO-220AC



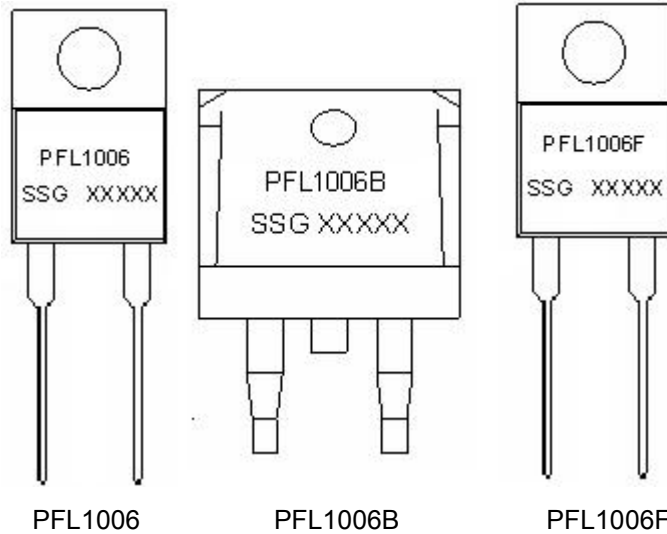
ITO-220AC



Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.55	4.70	4.85
A1	0	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
c1	1.17	1.27	1.37
D	8.55	8.70	8.85
D1	6.40		
E	10.01	10.16	10.31
E1	7.6		
E2	9.98	10.08	10.18
e		2.54	
H	14.6	15.1	15.6
L	2.00	2.30	2.70
L1	1.17	1.27	1.40
L2			2.20
L3		0.25BSC	
e	0	-	8°
e1		5°	
e2		4°	
e3		4°	

D²PAK

Marking Diagram:



Where XXXXX is YYWWL

PF = PFC UFR
L = Low VF
10 = Forward Current (10A)
06 = Reverse Voltage (600V)
B/F = Package type
SSG = SSG
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
PFL1006	TO-220AC(Pb-Free)	50pcs / tube
PFL1006B	D ² PAK(Pb-Free)	800pcs / reel
PFL1006F	ITO-220AC(Pb-Free)	50pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V_{RRM}	-	600	V
DC Blocking Voltage	V_R	-	600	V
Maximum RMS voltage	V_{RMS}	-	420	V
Average Forward Current	$I_{F(AV)}$	-	10	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	125	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_F	@ 10A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	1.5	V
Reverse Current*	I_R	@ $V_R = \text{rated } V_R$ $T_J = 25\text{ }^\circ\text{C}$	5	μA
Reverse Recovery Time	t_{rr}	$I_F=500\text{mA}$, $I_R=1\text{A}$, and $I_{rm}=250\text{mA}$	50	ns

* Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	PFL1006	PFL1006B	PFL1006F	Units
Junction Temperature	T_J	-55 to +175			$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +175			$^\circ\text{C}$
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	2.5 (Note 1)	5 (Note 2)	6.5 (Note 1)	$^\circ\text{C/W}$
Approximate Weight	wt	1.8	1.85	2	g
Case Style		TO-220AC/D ² PAK/ITO-220AC			

Note: 1. Device mounted on a infinite heatsink, then measured the center of the marking side
2. Mounted on a 10cm*10cm*1mm copper pad area



PFL1006
PFL1006F
PFL1006B

Technical Data
Data Sheet Rev. -

Green Products

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