SUPER-FAST RECOVERY RECTIFIERS

REV:1.01

Features

- Ultrafast 35 Nanosecond Recovery Time
- 175° C Operating Junction Temperature
- Popular ITO-220AC Package
- Epoxy Meets UL94 ,V0 @ 1/8"
- High Temperature Glass Passivated Junction
- Low Forward Voltage
- Low Leakage Current
- Reverse Voltage to 600 Volts
- Pb-Free Packages are Available

Typical Reference Data

VRRM= 200V
IF(AV)= 8A

VRRM= 400V
IF(AV)= 8A

VRRM= 600V
IF(AV)=8A

Mechanical Characteristics

- Case: Epoxy, Molded
- Weight: 1.9 grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260° C Max. for 10 Seconds
- Shipped 50 units per plastic tube

MAXIMUM RATINGS

Rating	Symbol	SFF802A	SFF804A	SFF806A	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	400	600	V
Average Rectified Forward Current Total Device, (Rated VR), TC = 150°C	IF(AV)	8			A
Peak Repetitive Forward Current (Rated VR, Square Wave, 20 kHz), TC = 150°C	IFM	16			A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave , single phase, 60 H	IFSM	100			A
Operating Junction Temperature and Storage Temperatu	TJ, Tstg	– 40 to +175			°C

THERMAL CHARACTERISTICS (Per Diode Leg)

Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.0	2.0		°C/W

ELECTRICAL CHARACTERISTICS(Per Diode Leg)

Maximum Instantaneous Forward Voltage (1) (IF = 8.0 Amps, TC = 25° C)	VF	1.05	1.35	1.5	V
Maximum Instantaneous Reverse Current (1)	IR				μA
(Rated dc Voltage, TJ = 150° C)		800	800	800	
(Rated dc Voltage, TJ = 25° C)		10	10	10	
Maximum Reverse Recovery Time (IF = 0.5 A, IR = 1.0 A, IREC = 0.25 A)	Trr	35			ns

(1) Pulse Test: Pulse Width = 300μs, Duty Cycle≤ 2.0%.

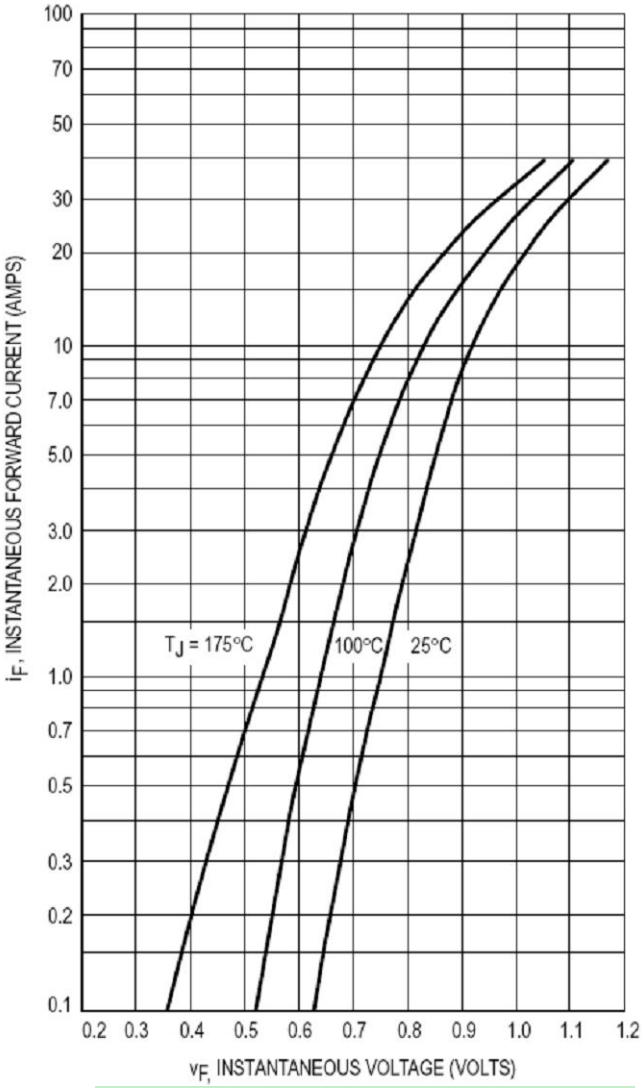


Figure 1.Typical Forward Voltage

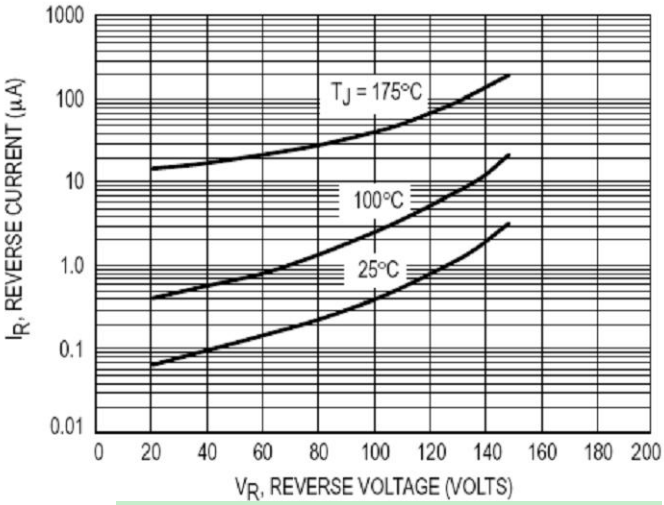


Figure 2.Typical Reverse Current

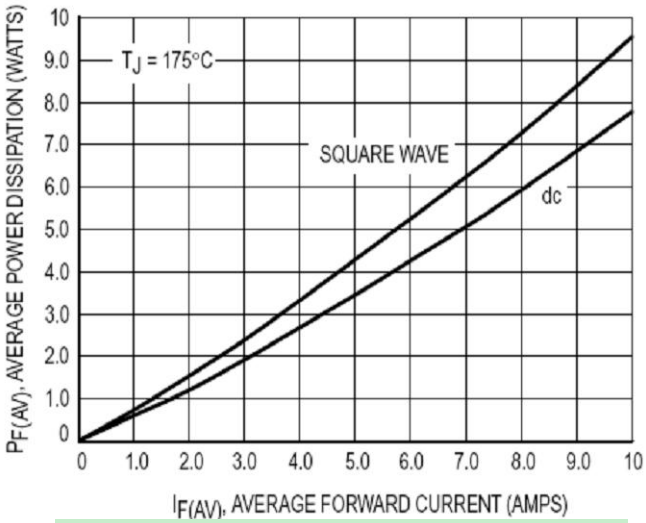


Figure 3.Current Derating, Case

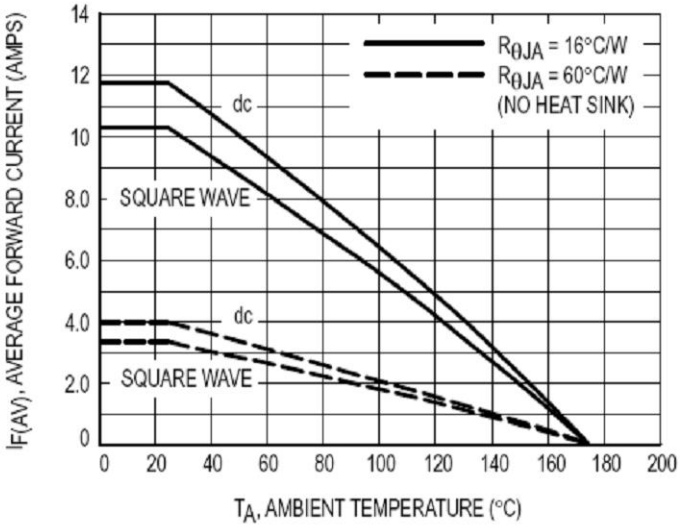


Figure 4.Current Derating, Ambient

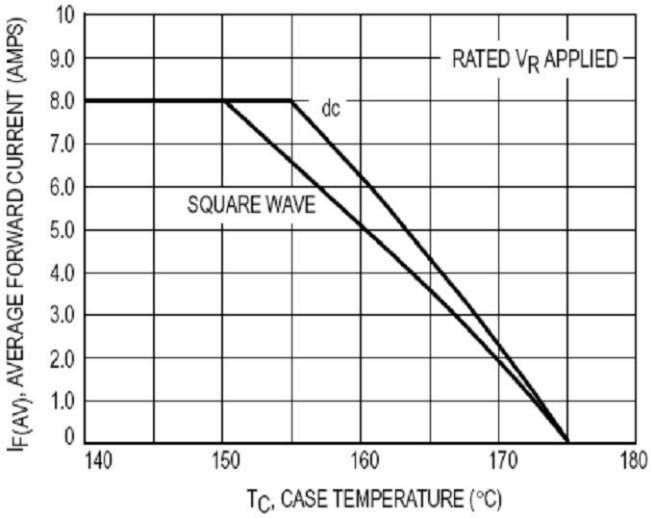
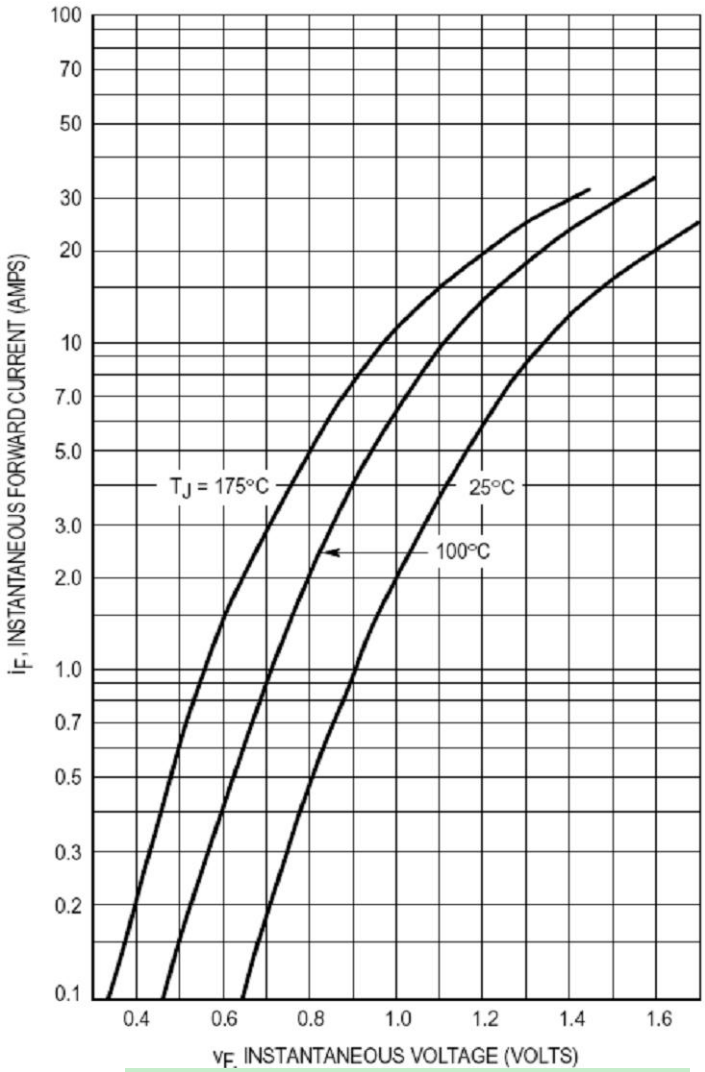


Figure 5.Power Dissipation



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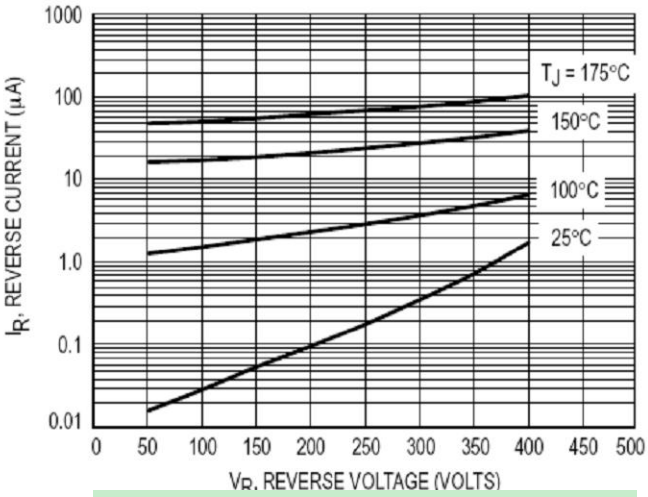
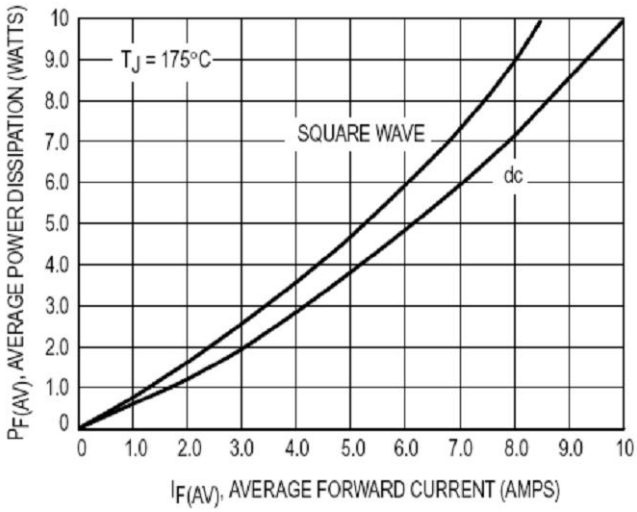


Figure 2.Typical Reverse Current



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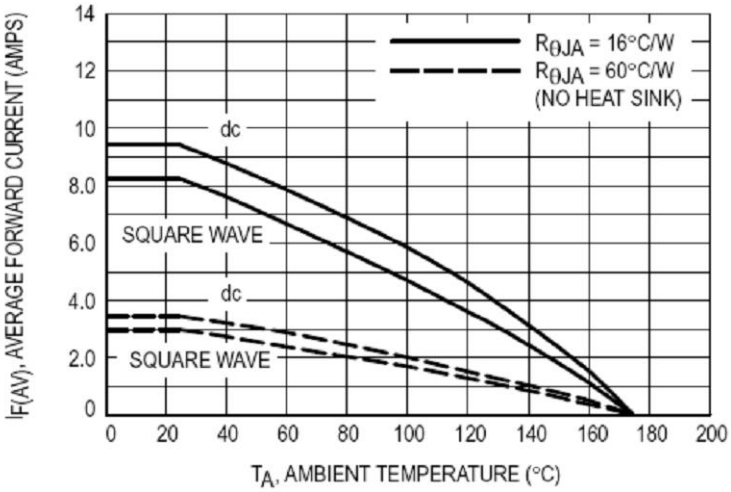

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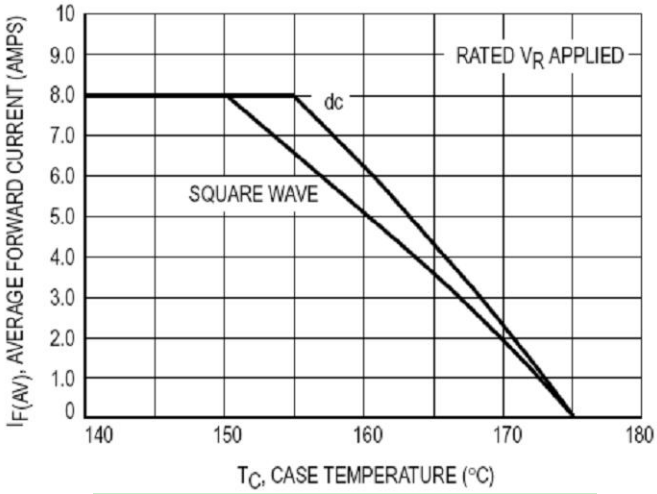

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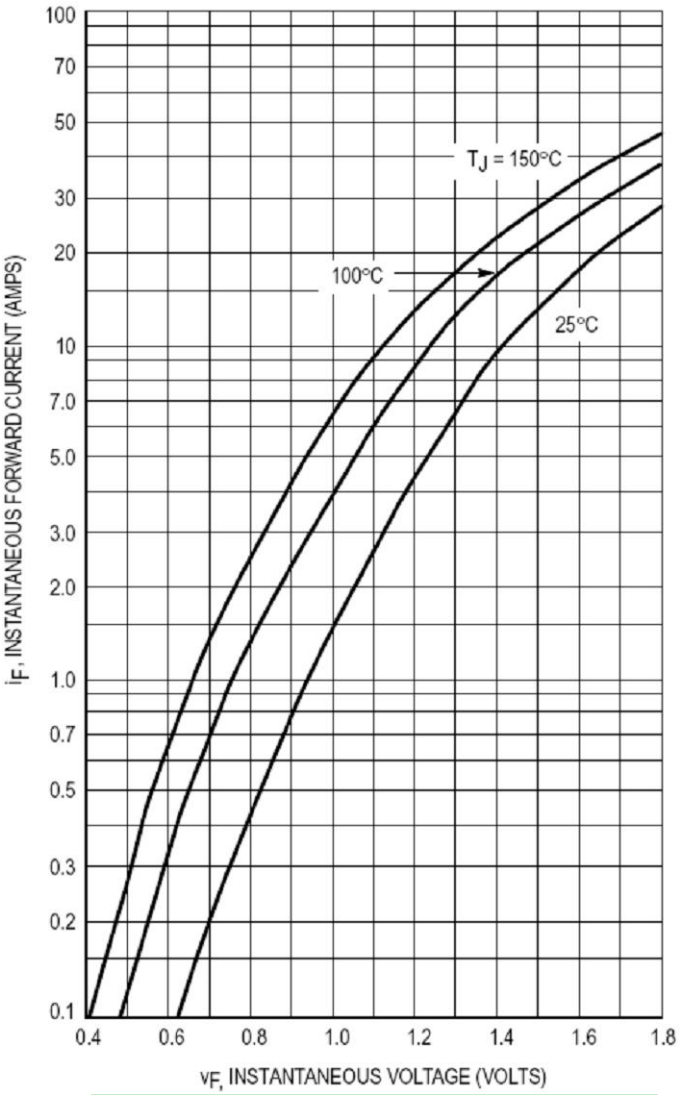

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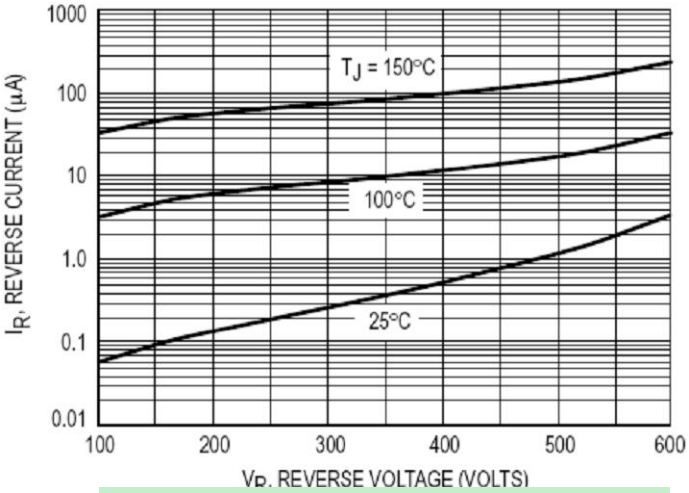
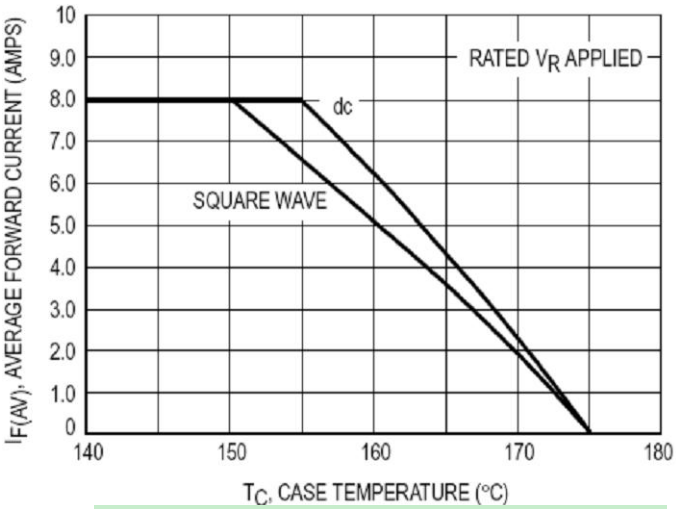


Figure 2.Typical Reverse Current



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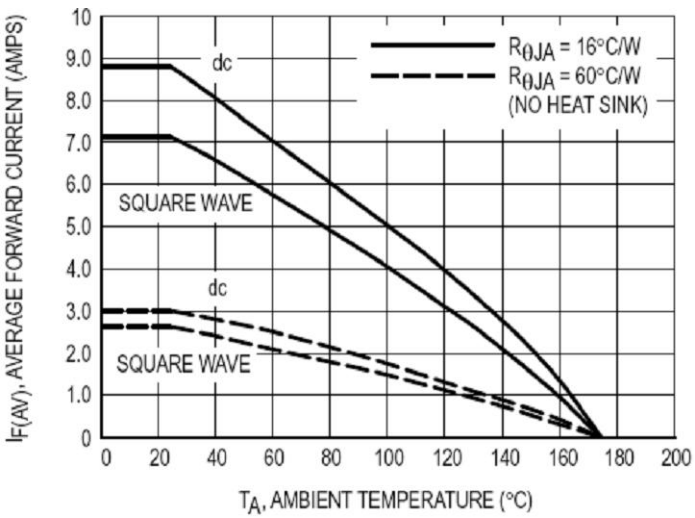

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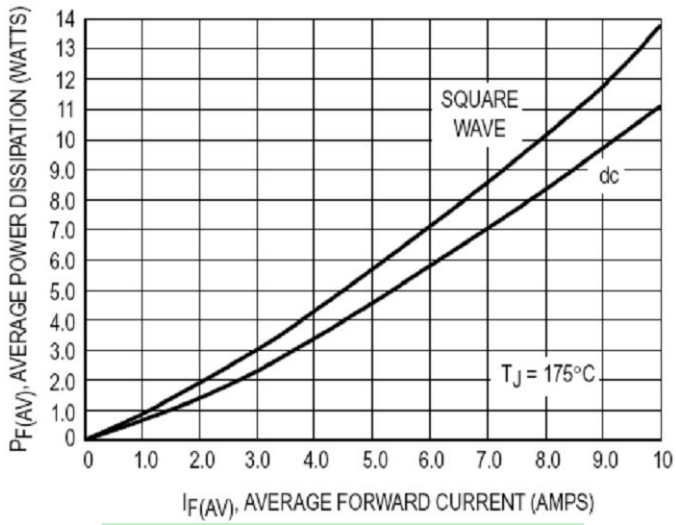

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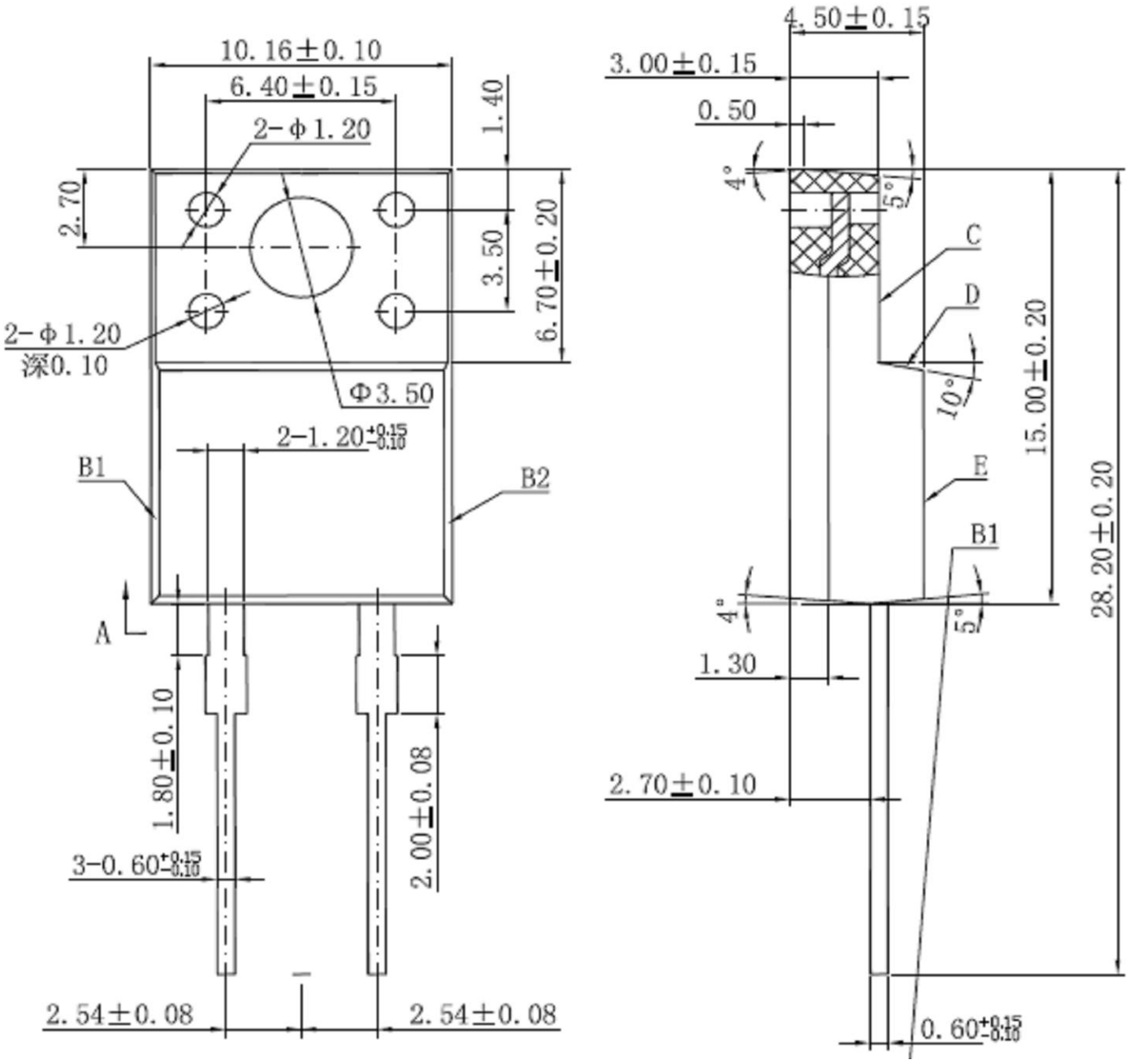
ITO-220AC


10.16±0.10
6.40±0.15
2-φ1.20
1.40
2.70
3.50
6.70±0.20
2-φ1.20
深0.10
Φ3.50
2-1.20+0.15 -0.10
B1
B2
A
1.80±0.10
3-0.60+0.15 -0.10
2.00±0.08
2.54±0.08
2.54±0.08
4.50±0.15
3.00±0.15
0.50
4°
5°
C
D
10°
15.00±0.20
28.20±0.20
E
B1
4°
5°
1.30
2.70±0.10
0.60+0.15 -0.10