

■ **Product Character**

- Super fast switching for high efficiency.
- Low reverse leakage.
- High forward surge current capability.
- RoHs Product.

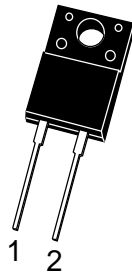
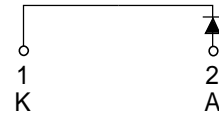
■ **Summarize**

- SFF506A Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

■ **Primary Use**

- Mainly used in switching power supply, PWM pulse width modulator, inverter as a freewheeling and other electronic circuits, high-frequency rectifier diode, diode or damping diode use

■ **Equivalent Circuit**



Package: ITO-220AC
SFF506A
SFF506A-HF
HF=Halogen Free

Absolute Maximum Ratings

Item	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	V_{RRM}	600	V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	I_{FAV}	5	A
Reverse Recovery Time($I_F=0.5A$ $I_R=1.0A$ $I_{REC}=0.25A$)	T_{RR}	≤ 35	nS
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	I_{FSM}	50×1	A
Operating Junction Temperature	T_J	-40~175	°C
Storage Temperature	T_{STG}	-40~175	°C
Typical Thermal Resistance(per leg)	Package=ITO-220AC $R_{\theta JC}$	4	°C/W

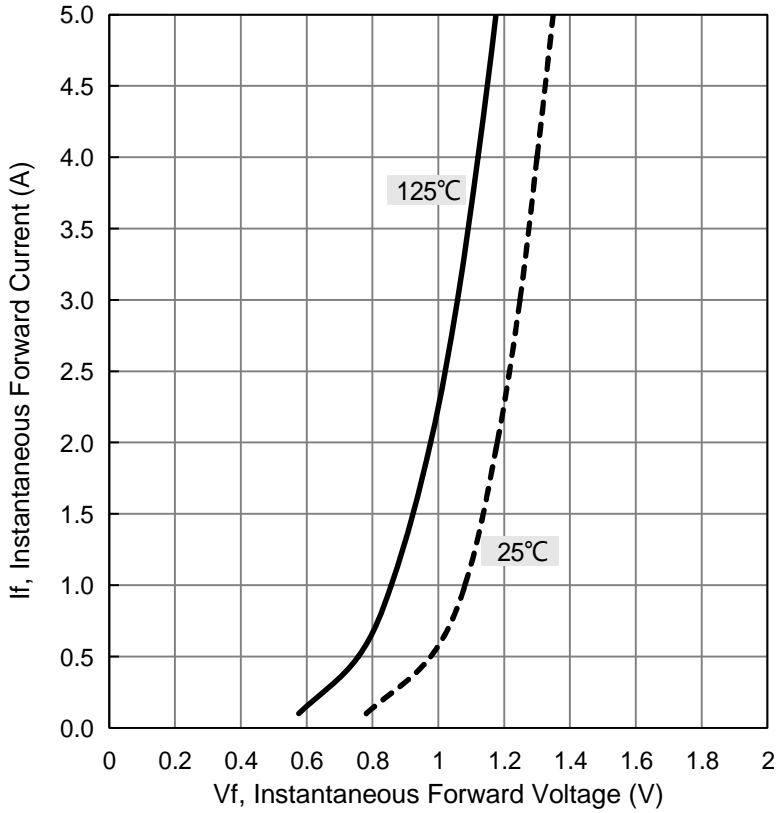
Electricity Character

Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	$T_J = 25^\circ C$	$I_R = 100\mu A$	600	---	---	V
I_R	$T_J = 25^\circ C$	$V_R = 600V$	---	---	0.01	mA
	$T_J = 125^\circ C$	$V_R = 600V$	---	---	0.10	mA
V_F	$T_J = 25^\circ C$	$I_F = 5A$ ($I_{FAV} = 5A \times 1$)	---	1.35	1.6	V
	$T_J = 125^\circ C$		---	---	1.5	V

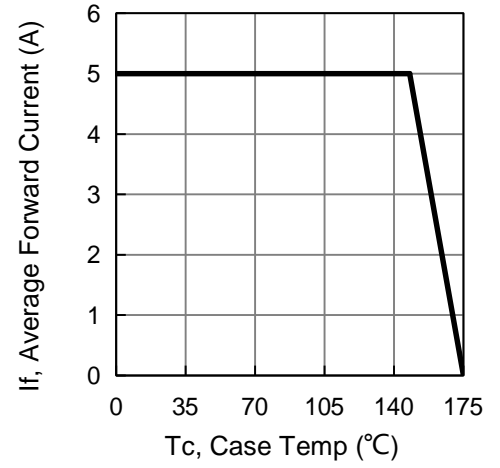


Characteristic Curves

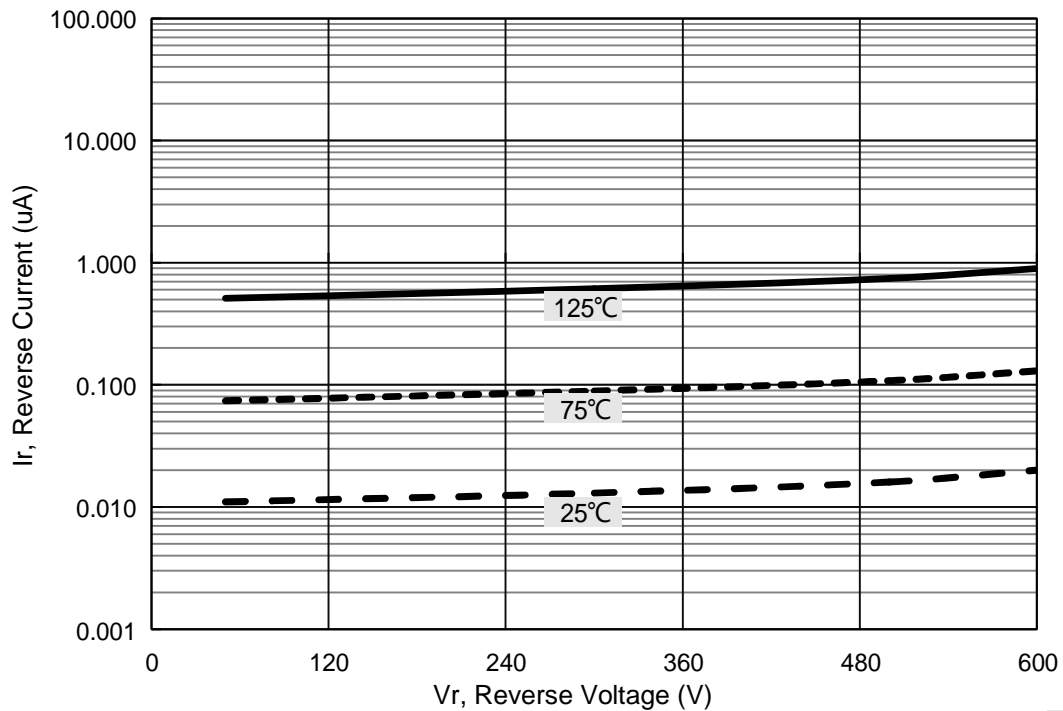
The forward voltage and forward current curve



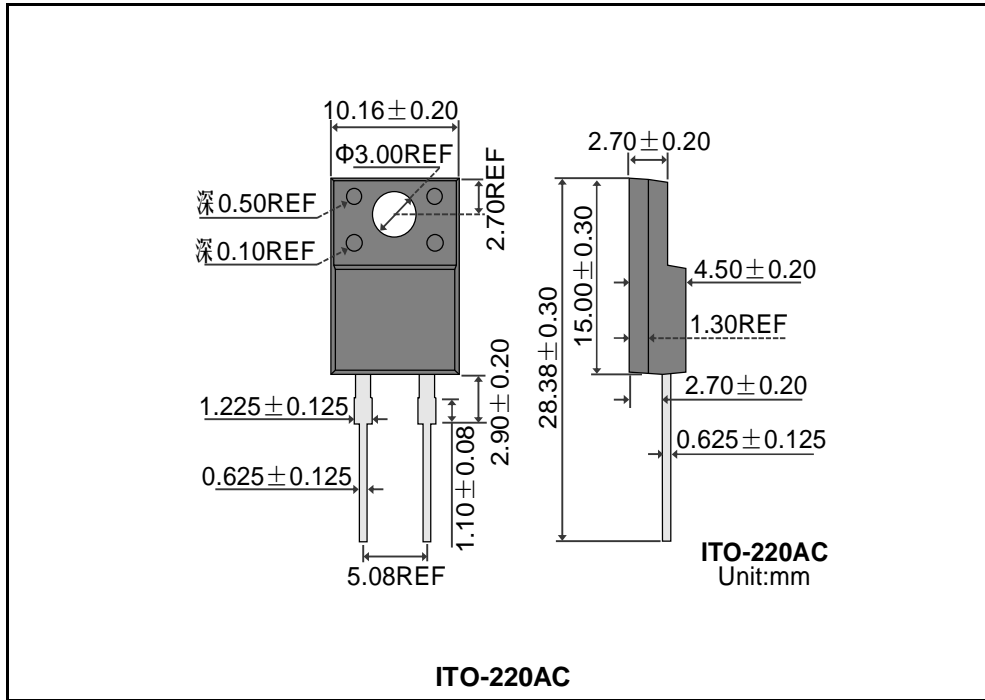
Current derating curve, per element



The reverse leak current and the reverse voltage (single-device) curve.



Package Outline Dimensions



Marking Information



“MHCHXM”= Product Logo
 “Marking Code”= The Following
 “XXXX”= Date Code Marking

Package	Marking Code	Part Number
ITO-220AC	SFF506A	SFF506A
		SFF506A-HF

Packing Information

Packaging	Package	Part Number	Quantity	Size
Tube	ITO-220AC	Tube	50 pieces	530*33*7mm
		Inner Box	1000 pieces	558*150*40mm
		Outer Box	5000 pieces	570*235*170mm

Notice:

Jiangsu Mhchxm Electronics Technology Co.Ltd., have the right to modify the specification revision, all information are subject to change without notice.

