

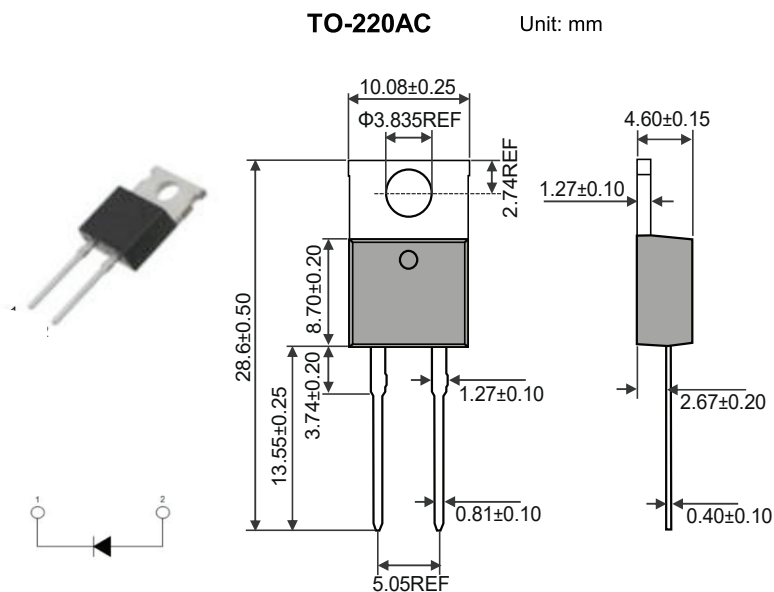
# **SUPER FAST RECTIFIER DATA SHEET**

## **FEATURES**

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

## **MECHANICAL DATA**

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



## **Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

### **Absolute Maximum Ratings**

Parameter	Symbol	Test Conditions	Values	Unit
Repetitive peak reverse voltage	V <sub>RRM</sub>		600	V
Continuous forward current	I <sub>F(AV)</sub>	(Rated VR-20Khz Square Wave)-50% duty cycle	15	A
Single pulse forward current	I <sub>FSM</sub>	8.3 Half Mssine Wave-According to JEDEC Method	250	A
Operating junction	T <sub>J</sub>		-40 to +175	°C
Storage temperatures	T <sub>stg</sub>		-40 to +175	°C

### **Electrical characteristics (Ta=25°C unless otherwise specified)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	V <sub>R</sub>	I <sub>R</sub> =100μA	600			V
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =15 A		1.9	2.2	V
		I <sub>F</sub> =15 A, T <sub>J</sub> =125°C			1.5	V
Reverse leakage current	I <sub>R</sub>	V <sub>R</sub> = V <sub>RRM</sub>			10	μA
		T <sub>J</sub> =125°C, V <sub>R</sub> =600V			100	μA
Reverse recovery time	T <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>RR</sub> =0.25A		25	30	ns

### **Thermal characteristics**

Parameter	Symbol	Typ	MAX	Unit
Junction-to-Case	R <sub>thJC</sub>	-	1.5	°C/W

## RATINGS AND CHARACTERISTIC CURVES

Fig. 1- Current derating curve, per element

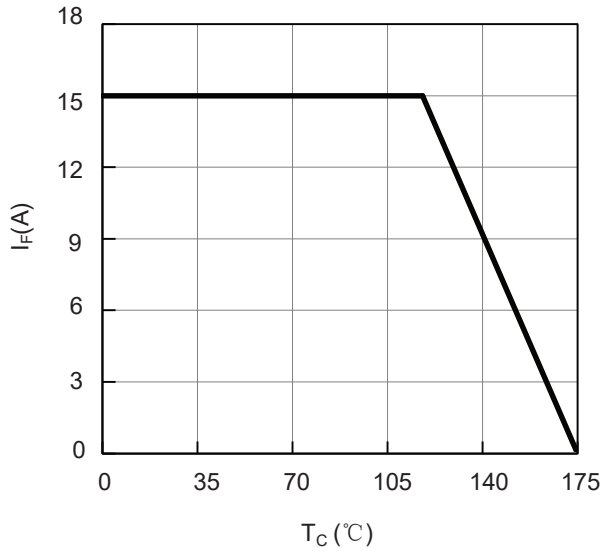


Fig. 2 - The forward voltage and forward current curve

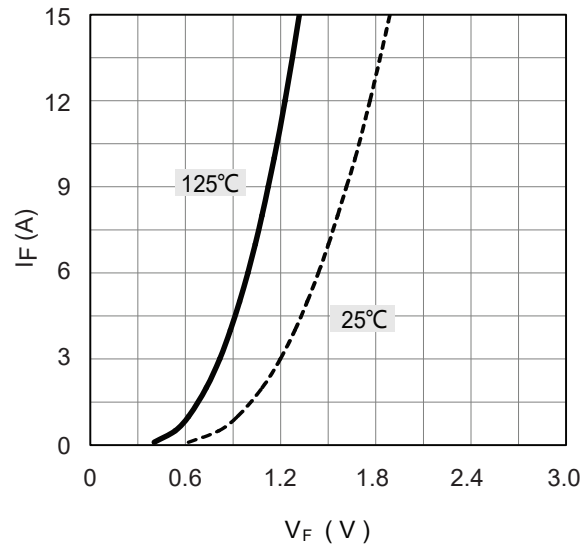


Fig. 3 - The reverse leakage current and the reverse voltage (single-device) curve.

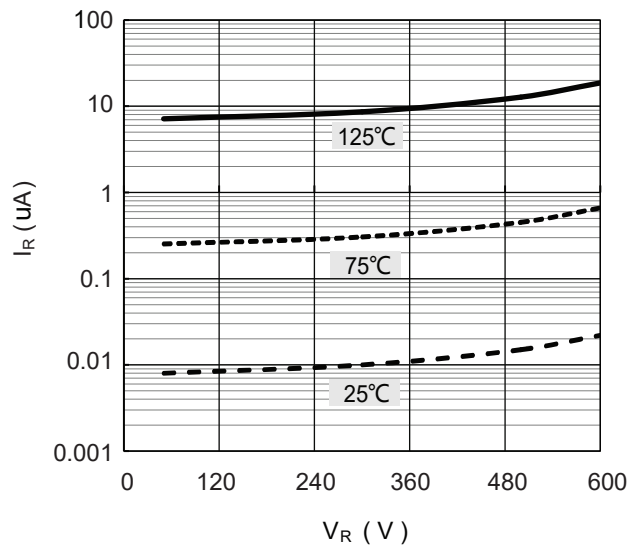
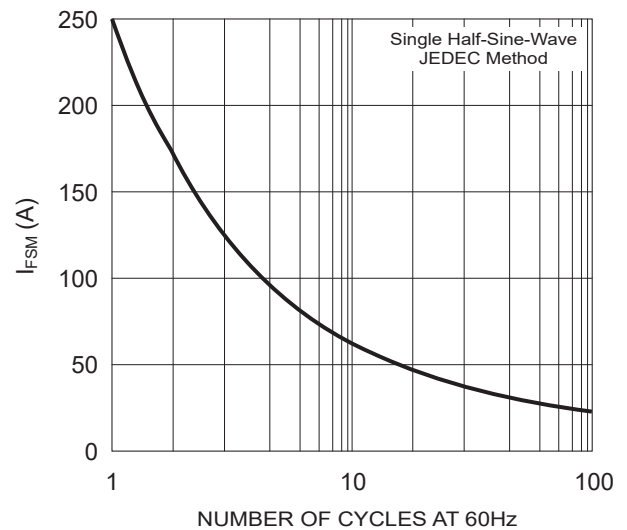


Fig. 4 - Forward surge current derating curve



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