

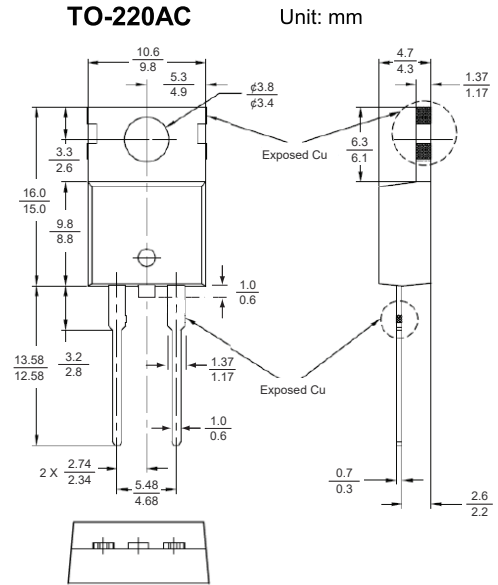
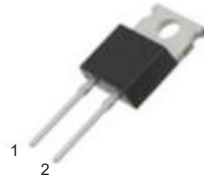
SUPERFAST RECTIFIER DATA SHEET

FEATURES

- Ultrafast Recovery
- 175°C Operating Junction Temperature
- High Frequency Operation
- Low IR Value
- High Surge Capacity
- Epitaxial Chip Construction

MECHANICAL DATA

- Switched Mode Power Supply
- Freewheeling Diode, Snubber Diode
- UPS



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Absolute Maximum Ratings

Parameter	Symbol	Test Conditions	Values	Units
Repetitive peak reverse voltage	V _{RRM}		1200	V
Continuous forward current	I _{F(AV)}	T _A =110°C	15	A
Single pulse forward current	I _{FSM}	T _A =25°C	150	A
Maximum repetitive forward current	I _{FRM}	Square wave, 20kHz	30	A
Operating junction	T _J		175	°C
Storage temperatures	T _{stg}		-55 to +175	°C

Electrical characteristics (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Breakdown voltage Blocking voltage	V _R	I _R =100μA	1200			V
Forward voltage	V _F	I _F =15 A		2.6	3.3	V
		I _F =15 A, T _J =125°C		2.2	3.3	V
Reverse leakage current	I _R	V _R = V _{RRM}			20	μA
		T _J =150°C, V _R =1200V			200	μA
Reverse recovery time	T _{rr}	I _F =0.5A, I _R =1A, I _{RR} =0.25A			55	ns
		I _F =1A, V _R =30V, di/dt =200A/us		23	35	ns

Thermal characteristics

Parameter	Symbol	Typ	MAX	Units
Junction-to-Case	R _{thJC}	-	3	°C/W

RATINGS AND CHARACTERISTIC CURVES

Fig. 1- Forward current derating curve

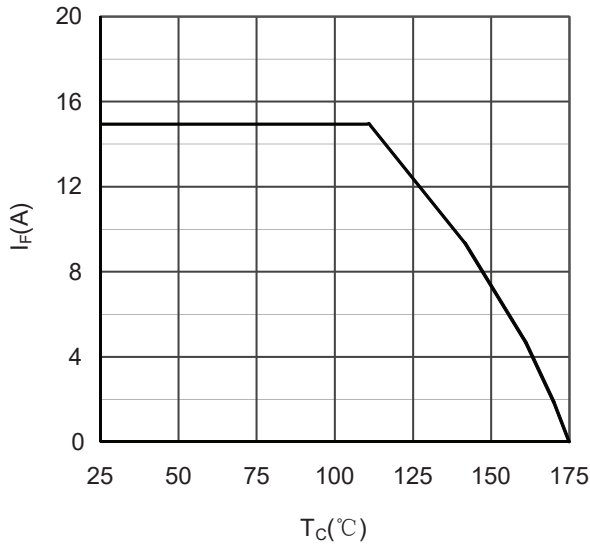


Fig. 2 - Typical forward characteristics

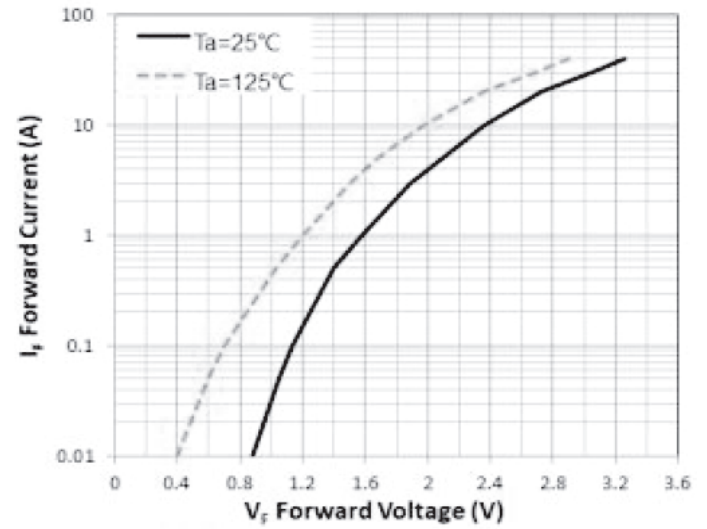


Fig. 3 - Typical reverse characteristics

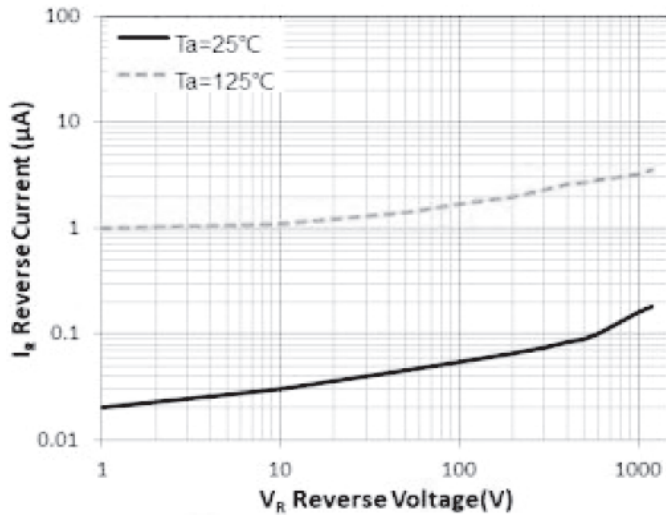


Fig. 4 - Forward surge current derating curve

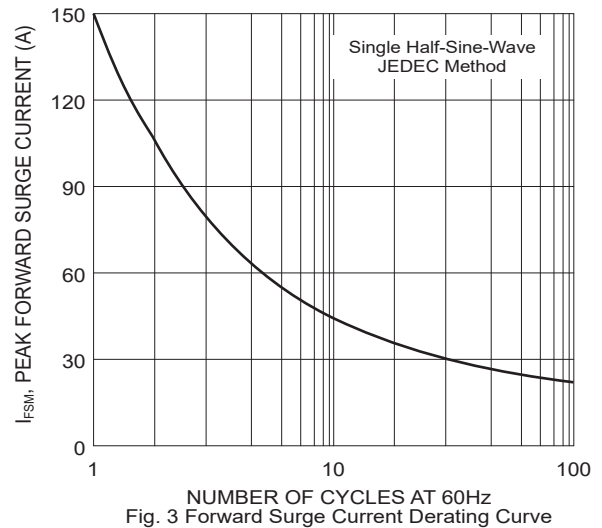


Fig. 3 Forward Surge Current Derating Curve

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