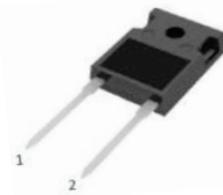


**SUPERFAST RECTIFIER DATA SHEET**
**FEATURES**

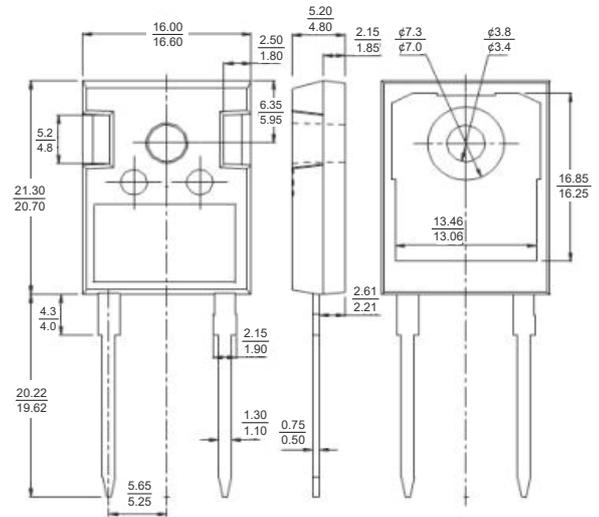
- Ultrafast Recovery
- 175°C Operating Junction Temperature
- High Frequency Operation
- Low IR Value
- High Surge Capacity
- Epitaxial Chip Construction

**MECHANICAL DATA**

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


**TO-247-2**

Unit: mm


**Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$  unless otherwise specified**
**Absolute Maximum Ratings**

Parameter	Symbol	Test Conditions	Values	Units
Repetitive peak reverse voltage	$V_{RRM}$		1200	V
Continuous forward current	$I_{F(AV)}$	$T_A=110^\circ\text{C}$	60	A
Single pulse forward current	$I_{FSM}$	$T_A=25^\circ\text{C}$	500	A
Maximum repetitive forward current	$I_{FRM}$	Square wave, 20kHz	110	A
Operating junction	$T_J$		175	$^\circ\text{C}$
Storage temperatures	$T_{stg}$		-55 to +175	$^\circ\text{C}$

**Electrical characteristics ( $T_A=25^\circ\text{C}$  unless otherwise specified)**

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Breakdown voltage Blocking voltage	$V_R$	$I_R=100\mu\text{A}$	1200			V
Forward voltage	$V_F$	$I_F=60\text{A}$		2.8	3.3	V
		$I_F=60\text{A}, T_J=125^\circ\text{C}$		2.4	3.0	V
Reverse leakage current	$I_R$	$V_R=V_{RRM}$			50	$\mu\text{A}$
		$T_J=150^\circ\text{C}, V_R=1200\text{V}$			500	$\mu\text{A}$
Reverse recovery time	$T_{rr}$	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$			80	ns
		$I_F=1\text{A}, V_R=30\text{V}, di/dt=200\text{A}/\mu\text{s}$		35	50	ns

**Thermal characteristics**

Parameter	Symbol	Typ	MAX	Units
Junction-to-Case	$R_{thJC}$	-	0.7	$^\circ\text{C}/\text{W}$

**RATINGS AND CHARACTERISTIC CURVES**

Fig. 1- Forward current derating curve

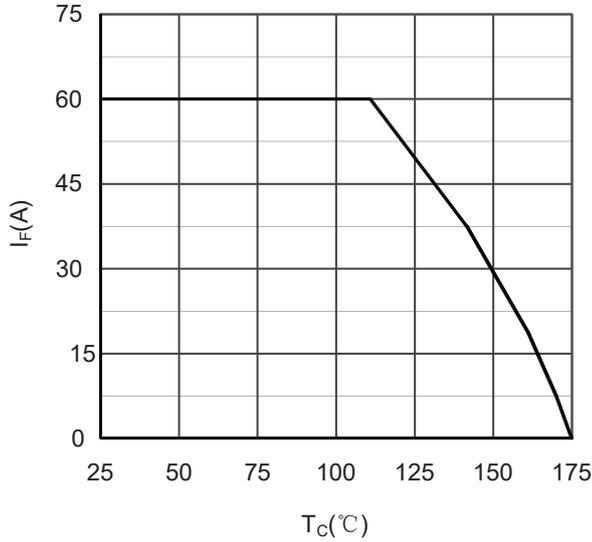


Fig. 2 - Typical forward characteristics

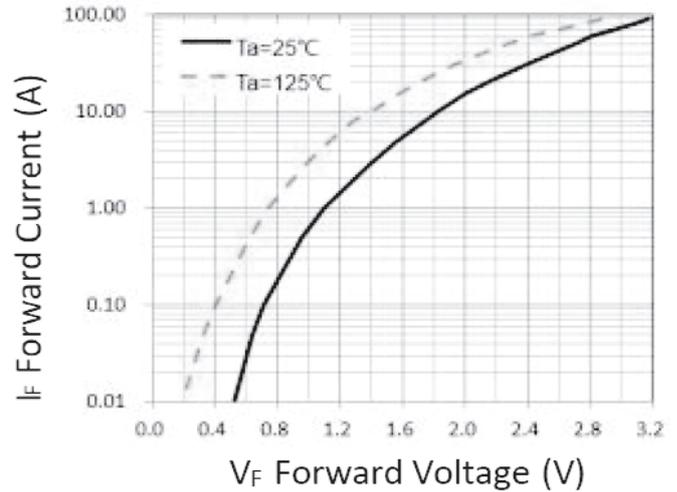


Fig. 3 - Typical reverse characteristics

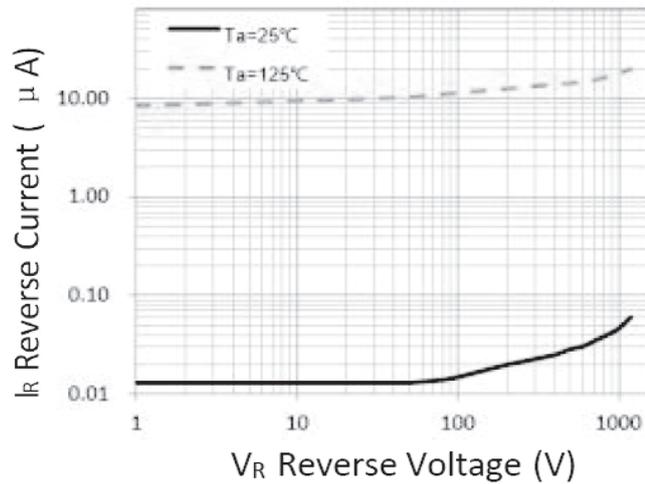


Fig. 4 - Forward surge current derating curve

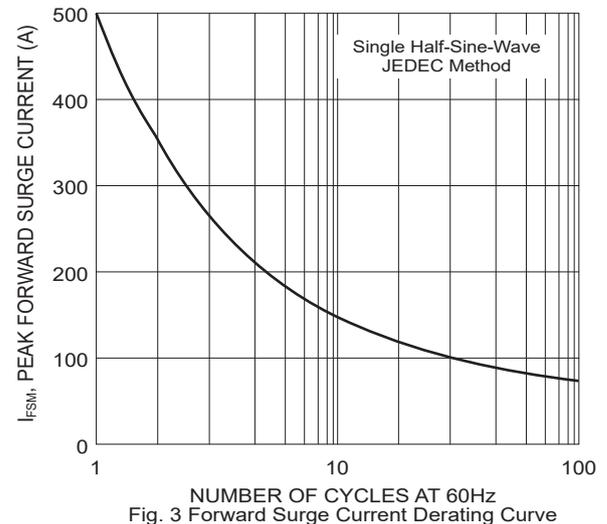


Fig. 3 Forward Surge Current Derating Curve

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