



# UGZ8DTH THRU UGZ8JTH

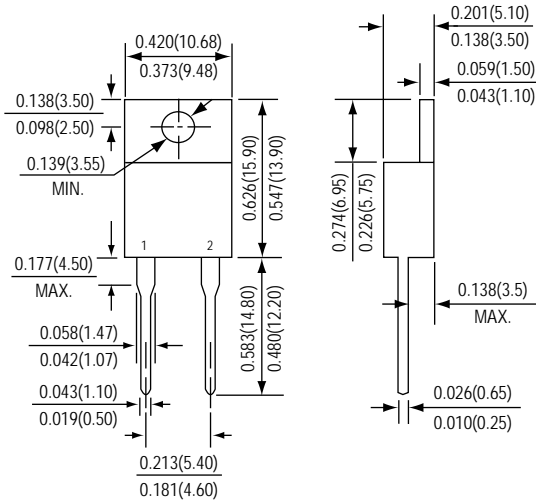
## ULTRAFAST EFFICIENT RECTIFIERS

Reverse Voltage - 200 to 600 Volts

Forward Current - 8 Amperes

**PATENTED**

TO-220AC



\*Dimensions in inches and (millimeters)

**SUPEREX II**™



### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* Halogen-free type
- \* Compliance to RoHS product
- \* Ultrafast recovery time for high efficiency
- \* Low forward voltage, high current capability
- \* Low leakage current
- \* High surge current capability
- \* Plastic Material-UL Recognition Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** JEDEC TO-220AC molded plastic body

**Terminals :** Plated Leads, solderable per MIL-STD-750, Method 2026

**Polarity :** Molded on body

**Mounting Position :** Any

**Weight :** 2.24 grams(Approximately)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	UGZ8DTH	UGZ8GTH	UGZ8JTH	UNITS
Maximum repetitive peak reverse voltage	VRRM	200	400	600	Volts
Working peak reverse voltage	VRWM	200	400	600	
Maximum RMS voltage	VRMS	140	280	420	
Maximum DC blocking voltage	VDC	200	400	600	
Maximum average forward rectified current See Fig. 1	I (AV)		8		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM		125		Amps
Maximum instantaneous forward voltage IF = 8 A, TA=25	VF	1.10	1.30	1.70	Volts
Maximum DC reverse current at rated DC blocking voltage @TA=25	IR		5		uA
Maximum reverse recovery time (NOTE 3)	trr		35		nS
Typical junction capacitance (Note 1)	CJ		68		pF
Typical thermal resistance (Note 2)	R JC		4.3		/ W
Operating temperature range	TJ		-50 to +150		
Storage temperature range	TSTG		-65 to +175		

Note : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V.  
2. Thermal resistance junction to case.  
3. Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A

# RATINGS AND CHARACTERISTIC CURVES UGZ8DTH THRU UGZ8JTH

FIG.1 - FORWARD CURRENT DERATING CURVE

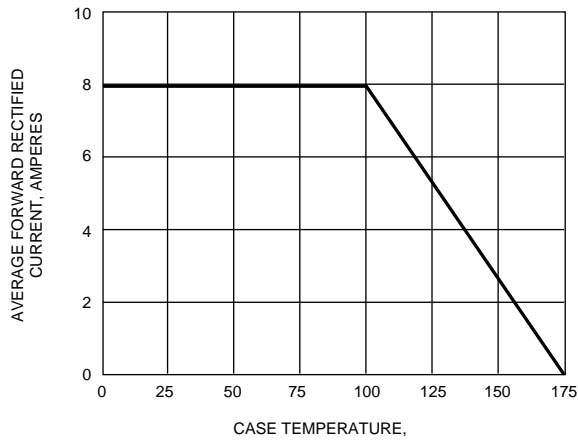


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

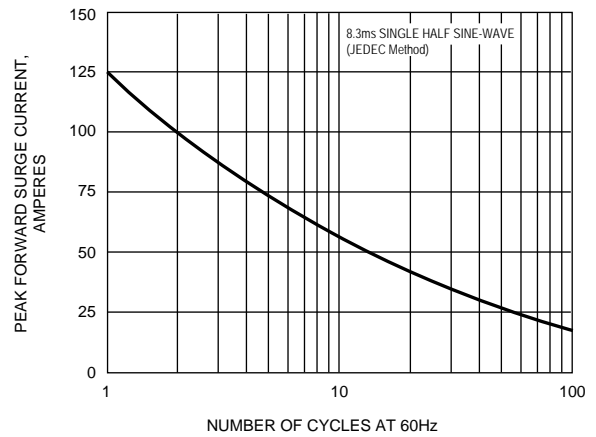


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

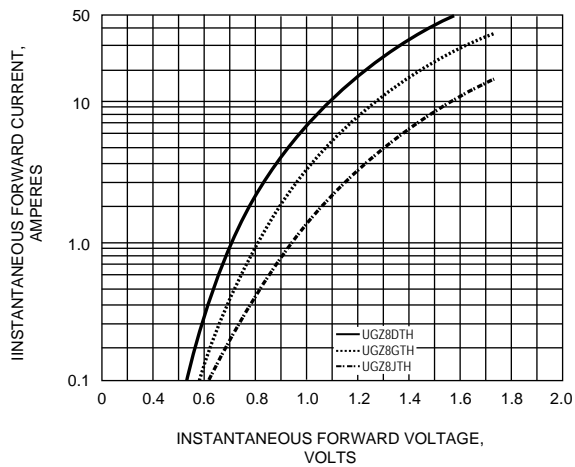


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

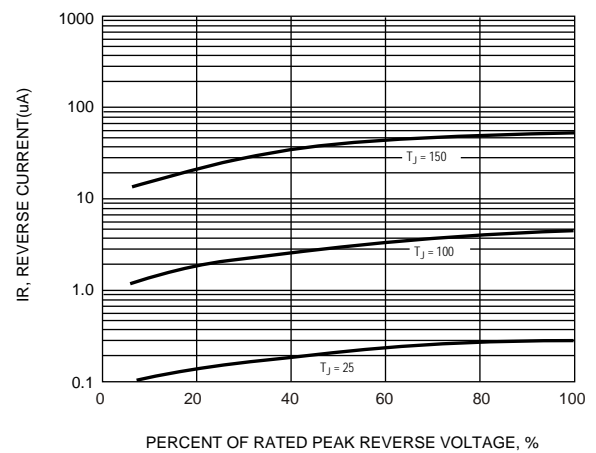


FIG.5 - TYPICAL JUNCTION CAPACITANCE

