



UGZ10DCTH THRU UGZ10JCTH

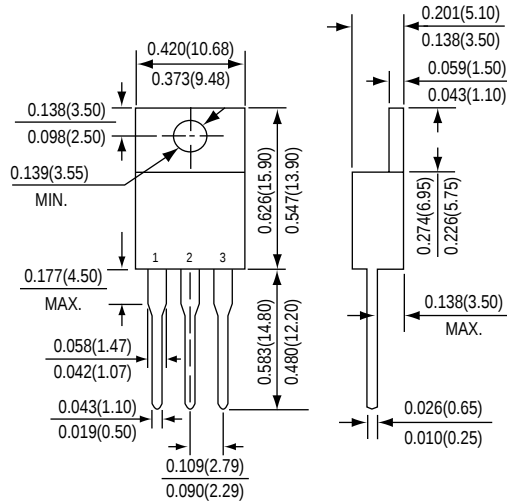
ULTRAFAST EFFICIENT RECTIFIERS

Reverse Voltage - 200 to 600 Volts

Forward Current - 10 Amperes

PATENTED

TO-220AB



*Dimensions in inches and (millimeters)

SUPEREX IITM



FEATURES

- * GPRC (Glass Passivated Rectifier Chip) inside
- * Glass passivated cavity-free junction
- * Halogen-free type
- * Lead free product, compliance to RoHS
- * 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-220AB 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	UGZ10DCTH	UGZ10GCTH	UGZ10JCTH	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)	10			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 = 5 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 θ 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 UGZ10DCTH THRU UGZ10JCTH

FIG.1 - FORWARD CURRENT DERATING CURVE

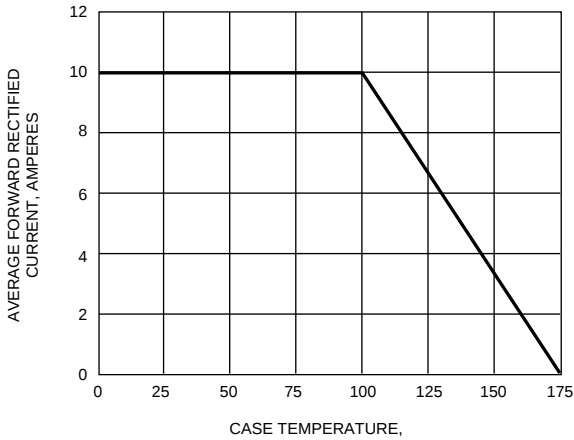


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

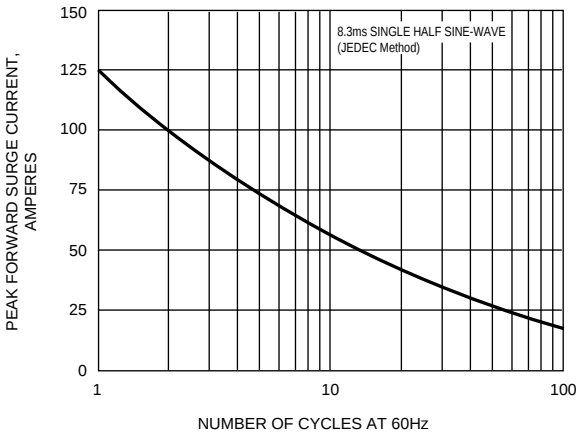


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

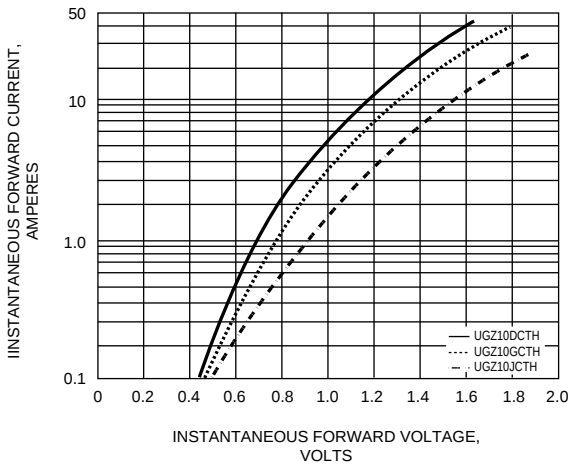


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

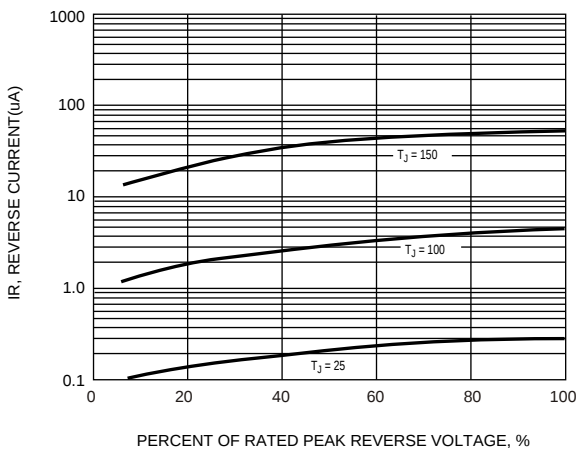


FIG.5 - TYPICAL JUNCTION CAPACITANCE

