



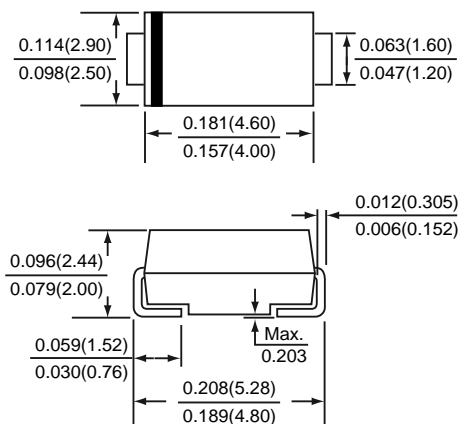
UGF10AH THRU UGF10KH

SURFACE MOUNT GLASS PASSIVATED JUNCTION ULTRAFAST EFFICIENT RECTIFIER

Reverse Voltage - 50 to 800 Volts Forward Current - 1.0 Ampere

PATENTED

SMA/DO-214AC



*Dimensions in inches and (millimeters)

SUPEREX II™



FEATURES

- * Halogen-free type
- * Lead free product, compliance to RoHS
- * GPRC (Glass Passivated Rectifier Chip) inside
- * Glass passivated cavity-free junction
- * Ideal for surface mount automotive applications
- * Ultrafast recovery time for high efficiency
- * Easy pick and place
- * High temperature soldering guaranteed: 260°C/10 seconds, at terminals
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic over passivated chip

Terminals : Tin plated, solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Weight : 0.002 ounces , 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.	SYMBOLS	UGF10						UNITS
		AH	BH	DH	GH	JH	KH	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	Volts
Maximum average forward rectified current T _L =110°C	I (AV)	1.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30				25		Amps
Maximum instantaneous forward voltage at 1.0 A	V _F	0.95		1.25		1.7	2.2	Volts
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5 50						uA
Maximum reverse recovery time (NOTE 1)	t _{rr}	35						nS
Typical junction capacitance (NOTE 2)	C _J	10						pF
Typical thermal resistance (NOTE 3)	R _{θJA}	34						°C / W
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +175						°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, I_{rr}=0.25A
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
 (3) Thermal resistance from junction to ambient P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES UGF10AH THRU UGF10KH

FIG.1 - FORWARD CURRENT DERATING CURVE

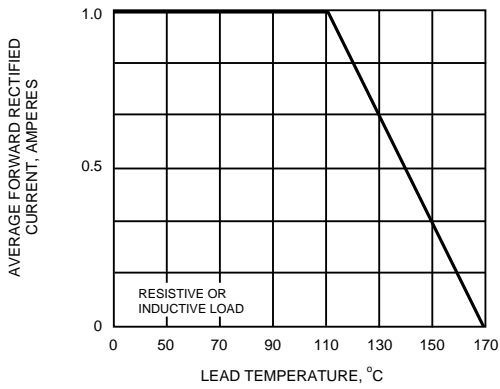


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

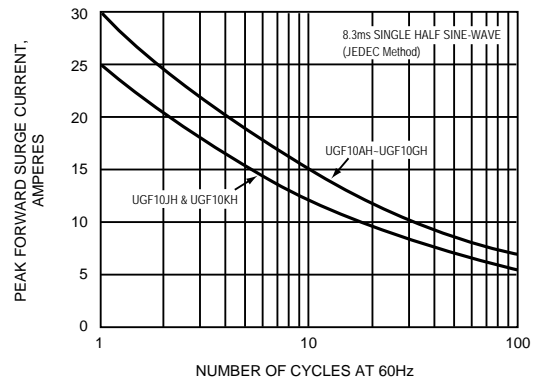


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

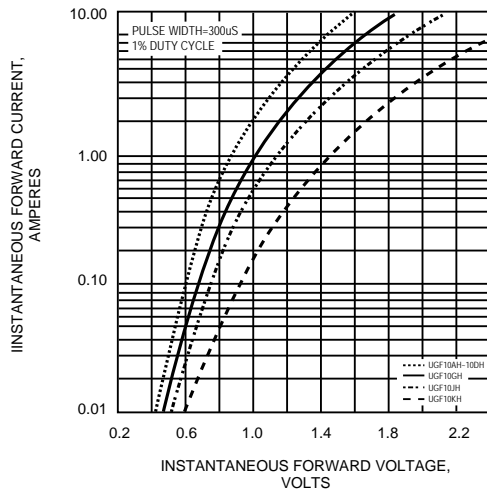


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

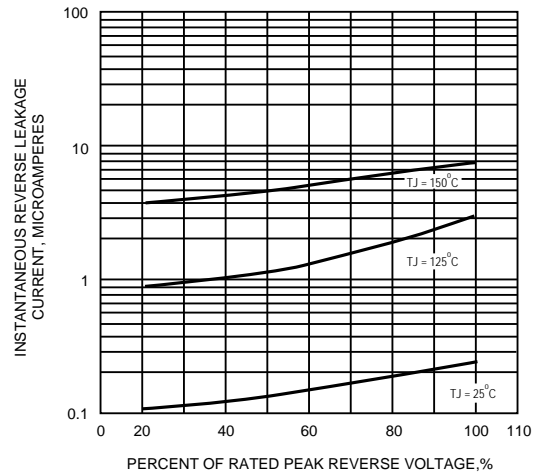


FIG.5 - TYPICAL JUNCTION CAPACITANCE

