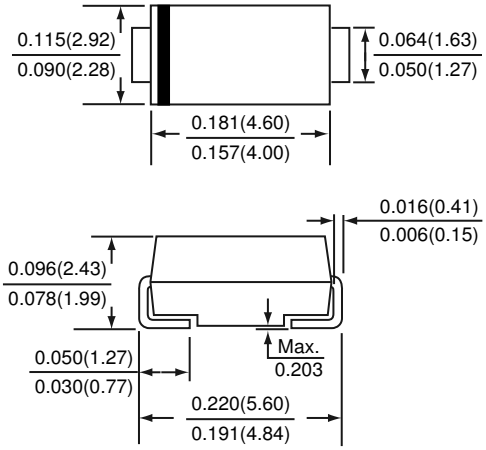
UGF10AH THRU UGF10KH

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
* Compliance to RoHS product
* 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 ounes , 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)	trr	35						nS
Typical junction capacitance (NOTE 2)	C_J	10						pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	68 23						°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, Irr=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

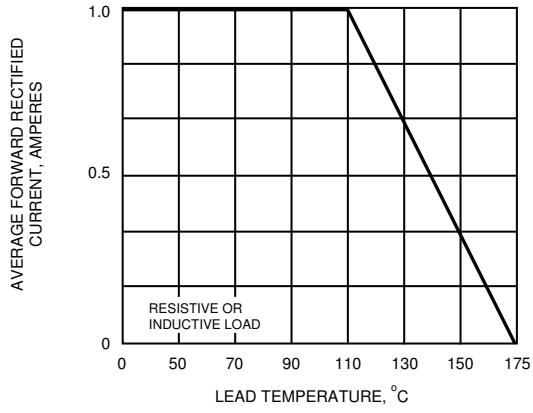


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

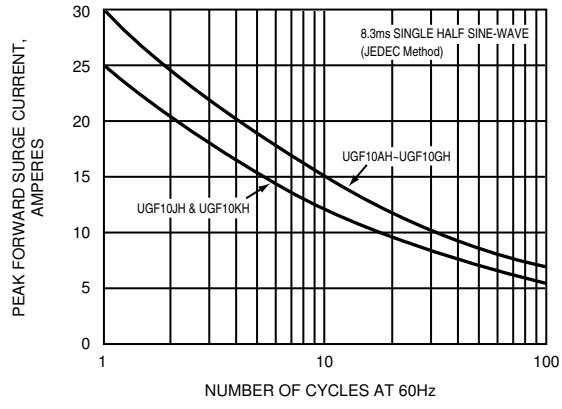


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

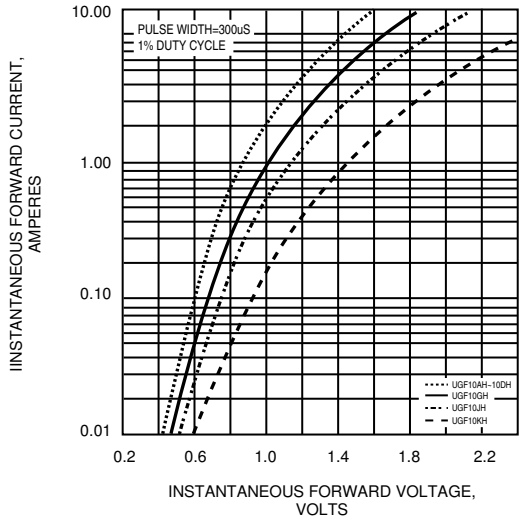


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

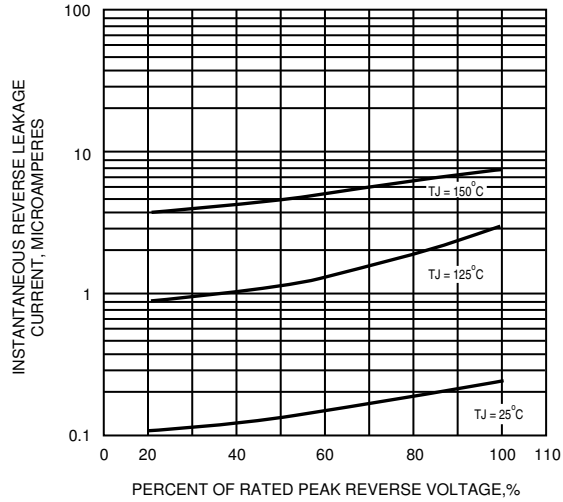


FIG.5 - TYPICAL JUNCTION CAPACITANCE