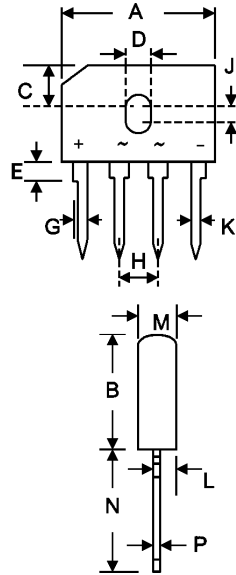


### 6.0A ULTRA-FASTGLASS PASSIVATED BRIDGE RECTIFIER

#### FEATURES

- \* Glass Passivated Die Construction
- \* Low Forward Voltage Drop
- \* High Current Capability
- \* High Reliability
- \* High Surge Current Capability
- \* High-Switching Speed 100 Nanosecond Recovery Time



UBU		
Dim	Min	Max
A	21.80	22.30
B	18.30	18.80
C	7.40	7.90
D	3.50	4.10
E	1.52	2.03
G	2.16	2.54
H	4.83	5.33
J	1.65	2.16
K	1.65	2.03
L	0.76	1.02
M	3.30	3.56
N	17.50	18.00
P	0.46	0.56
Unit :mm		

#### MECHANICAL DATA

- \* Case: Molded Plastic
- \* Epoxy: UL94V-O rate flame retardant
- \* Terminals : Plated Leads Solderable  
Per MIL-STD-202 Method 208
- \* Polarity : As Marking on Body
- \* Mounting Position: Any
- \* Weight : 4.0 gram (approx.)
- \* Marking:Type Number

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- \* Rating at 25 ambient temperature unless otherwise specified
- \* Single phase, half wave, 60Hz, resistive or inductive load.
- \* For capacitive load derate current by 20 %

Characteristic	Symbol	UGU6A	UGU6B	UGU6D	UGU6G	UGU6J	UGU6K	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	50	100	200	400	600	800	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	V
Average Rectifier Forward Current @ $T_C=100$	$I_{O(AV)}$	6.0						A
Non-Repetitive Peak Surge Current 8.3 ms Single half sine-wave superimposed on rated load	$I_{FSM}$	175						A
Forward Voltage (per element) ( $I_F=2.0$ Amp)	$V_{FM}$	1.0						V
Peak Reverse Current ( Rated DC Voltage, $T_C = 25$ ) ( Rated DC Voltage, $T_C = 100$ )	$I_R$	5.0 500						$\mu$ A
$I^2 t$ Rating for Fusing( $t<8.35MS$ )	$I^2 t$	127						$A^2s$
Typical Thermal Resistance (per leg)(note 1)	$R_{\theta jA}$	8.6						k/W
Typical Thermal Resistance (per leg)(note 2)	$R_{\theta jc}$	3.1						k/W
Reverse Recovery Time ( $I_E = 0.5 A$ , $I_D = 1.0$ , $I_R = 0.25 A$ )	$T_{rr}$	100						ns
Operating and Storage Temperature Range	$T_J, T_{stg}$	-65 to +150						

Note: 1. Thermal resistance junction to ambient, mounted on PCB at 9.5mm lead length with 12 mm<sup>2</sup> copper pads.  
2. Thermal resistance junction to case, mounted on 5.0×4.0×0.8 cm thick AL plate.

# UGU6A thru UGU6K

FIG-1 FORWARD CURRENT DERATING CURVE

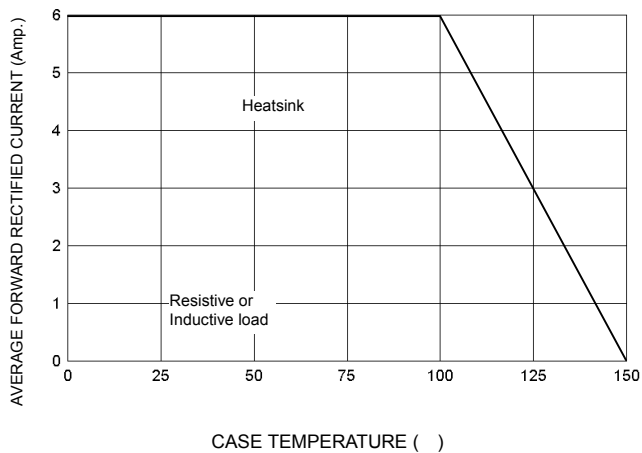


FIG-2 TYPICAL FORWARD CHARACTERISTICS

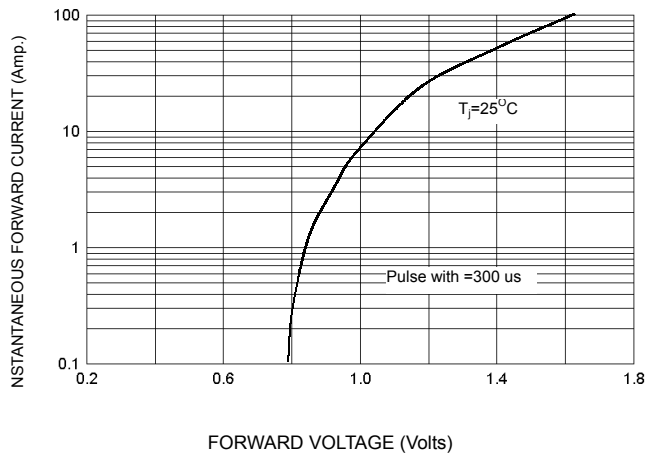


FIG-3 PEAK FORWARD SURGE CURRENT

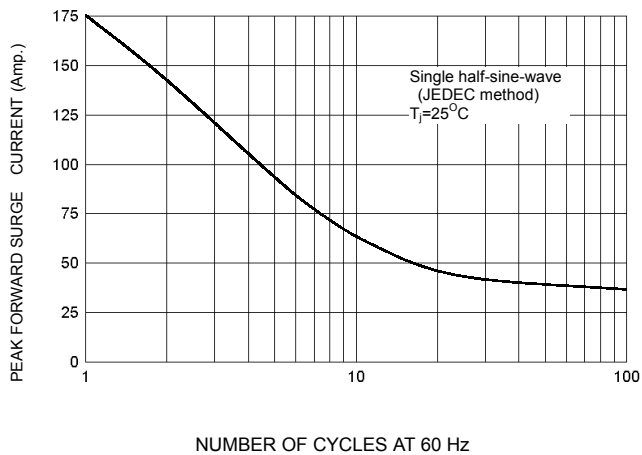


FIG-4 TYPICAL JUNCTION CAPACITANCE

