



U2A THRU U2M

2.0AMP Surface Mount Glass Ultra Fast Rectifier

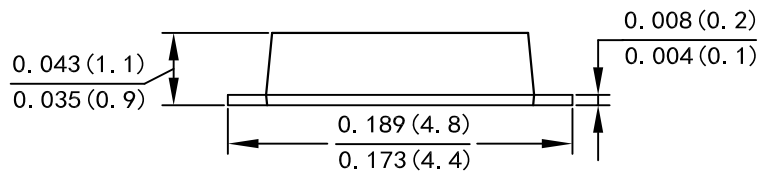
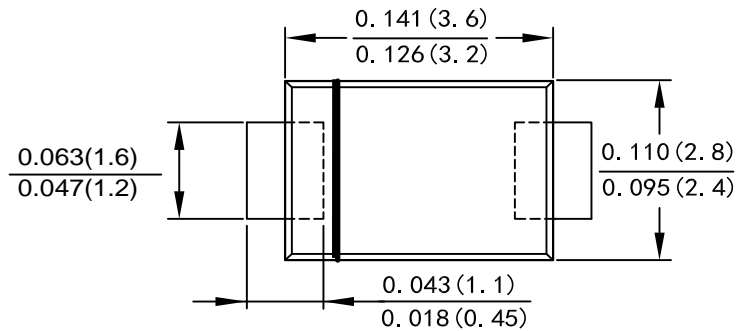
Features

- Low cost
- Ultra fast switching for high efficiency
- High current capability
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: Molded plastic SMAF
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any
- Making: Type Number

Case: SMAF



'LPLHQVLRQV LQ LQFKHV DQG P

Maximum Ratings and Electrical Characteristics

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

Type Number	SYMBOL	U2A	U2B	U2D	U2G	U2J	U2K	U2M	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @ $T_L = 90^\circ C$	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	14.940							A ² s
Forward Voltage @ $I_F = 2.0A$	V_{FM}	1.0		1.3		1.7		V	
Peak Reverse Current @ $T_A = 25^\circ C$	I_R	5.0							uA
At Rated DC Blocking Voltage @ $T_A = 125^\circ C$		100							
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50				75			ns
Typical Junction Capacitance (Note 2)	C_J	15							pF
Typical Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	105							°C/W
	$R_{\theta JL}$	15							
	$R_{\theta JC}$	23							
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Note:

1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$.
2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
3. Device mounted on FR-4 substrate, 1" x 1", 2oz, single-sided, PC boards with 0.06" x 0.09" copper pad. For reference only

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FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

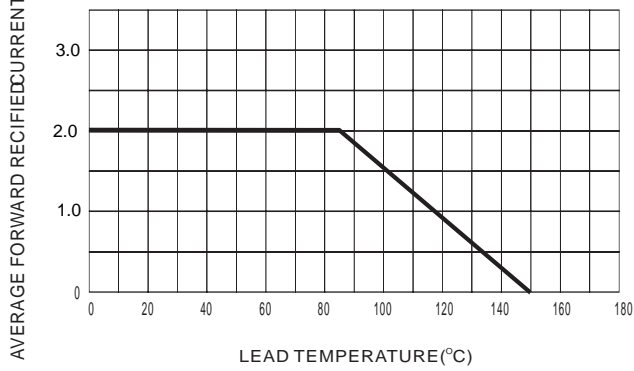


FIG.2 TYPICAL FORWARD CHARACTERISTICS

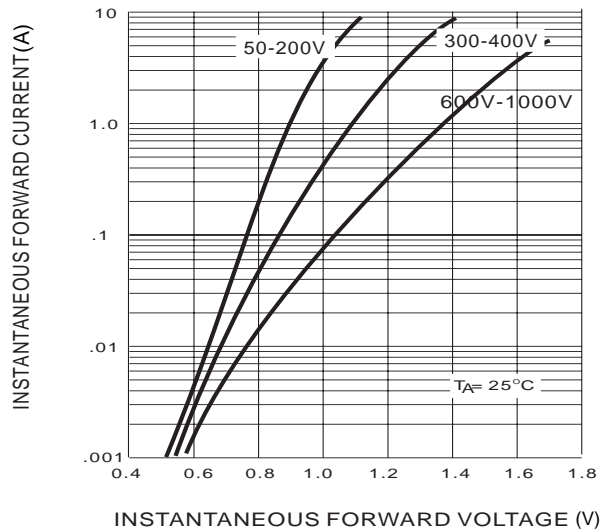


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

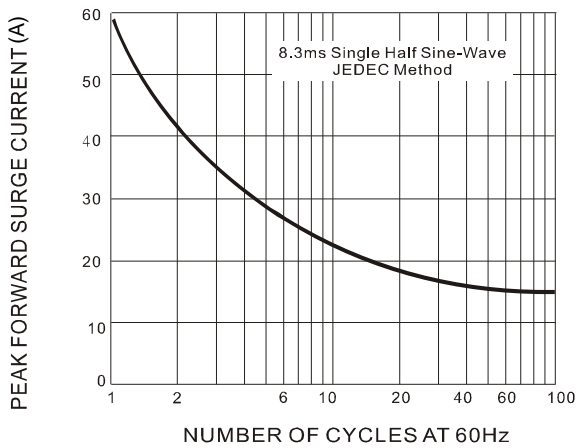


FIG.4 TYPICAL JUNCTION CAPACITANCE

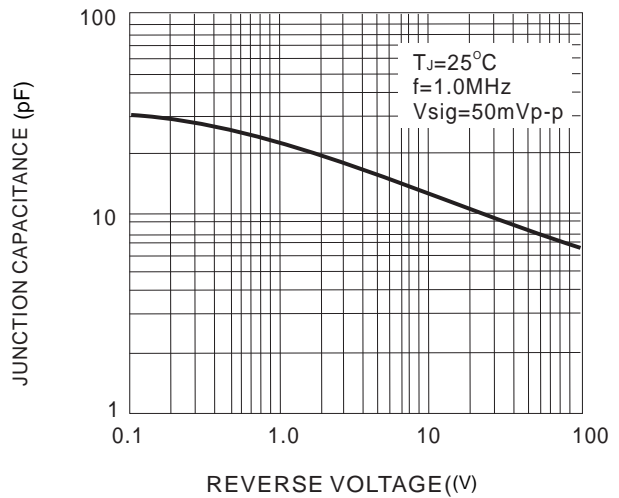


FIG.5 TYPICAL REVERSE CHARACTERISTICS

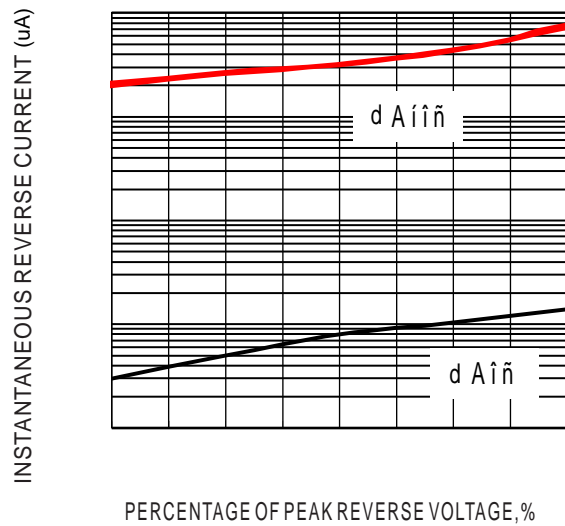
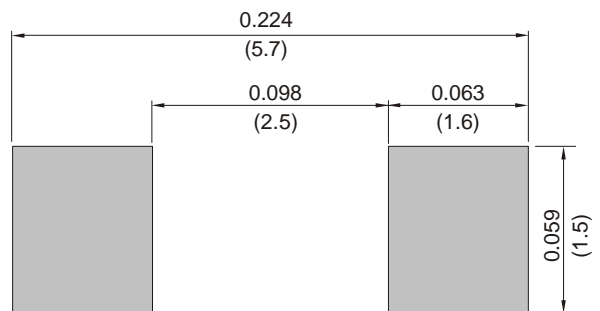


Fig.6 TYPICAL CAPACITANCE



Important Notice and Disclaimer

† HSURGX DLGG LJVLD QUP DWRVNG RFX PHS QVRK GZLW KR KU PLVVLRQ
IUR; ,1182

† ;,1182 UHVHUYHV WKH ULJKW WR PDNH FKDQJHV WR WKLV GRFX
VSHFLILFDWLRQV

† ;,1182 GLVLF DQ\ DOL DLQ DLWJRLX WKH SSOLE DWRVLR
DQSUR VQFF OXG EOH VLQ FLGH DQVSDO OT XIB QD FFXUHG

† ;,1182 GRVQ RVXF DQ\ DQ S OGZD DQWVL QFOXZ DQWV RQHV V IRU
SDUWUSFXUSDRHQQ IULHQW QSHU EOH LQ LW

† SSOLE VWRK GVK KHU LGR FXPV DQ D P SIOV RQV DGX WDQG
RSHUDWLRQV DQ WVR QW UEROP SUHKJHVK KDQXV ISO UWLFXOD
DSOLFQWLR

;,1182 PDNV QHSVHQ VQD RQD DQW KQXKD SOLFQZVORV XLWIDRKH
VSHFLXV WGWKR WKKHVVR E RGLILFDWLRQ

† 7HSURGX VWRK HU DQV VGHJG HDQ & WK BUIRTHXLS PHQWVKLLQ
OHYB HLDREULH DQWKRQ DQD QGRU DSSLFQWRB FHUQVLDY LQJ
RDLVX VWDL QHEDQ HG LEO VWUXV DQVSRV QHDS PIRI QVU RDS
PDFKLQ HMAW & X DWR R M UQRVH QVHQB SURGXFWV LQKFD SSOLEFDWLRQV
GRV RQV QULN DQVHWXRLQHQ L; ,1182IRU DQD B UHVX QWRVQ FK
LPSURSMRUDOH

† 6LQF, 1182XV VQXPEH DQW DFNLQJ HSD VSHURVH VQXPEH DFNLQJ
ZKHQ RPSODLQLQJ