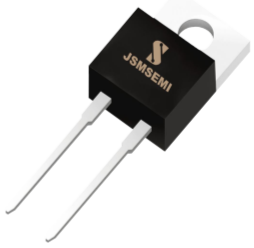
SMUR860G
SUPERFAST RECOVERY RECTIFIERS

CURRENT: 8.0 Amps **VOLTAGE:** 100~700 V

FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- Exceeds environmental standards of MIL-S-19500/228.
- Hermetically sealed.
- Low leakage.
- High surge capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- In compliance with EU RoHS 2002/95/EC directives



TO220-2L
Package

MECHANICAL DATA

- Case: Molded plastic, TO-220AC
- Terminals: Axial leads, solderable to MIL-STD-750,Method 2026
- Polarity: As marking
- Weight: 0.0655 ounces, 1.859 grams.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	SMUR860G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Current at TC=75℃	$I_{F(AV)}$	8.0	A
Peak Forward Surge Current, 8.3ms single half sine-wa ve superimposed on rated load (JEDEC method)	I_{FSM}	125	A
Maximum Forward Voltage at 8.0A (Note 1)	V_F	1.7	V
Maximum DC Reverse Current TJ=25 ° C at Rated DC Blocking Voltage TJ=100° ℃	I_R	1.0 300	μA
Maximum Reverse Recovery Time (Note 1)	trr	35	ns
Typical Junction capacitance (Note 2)	CJ	65	pF
Typical thermal Resistance (Note 3)	RθJC	3.0	0℃/ W
Operating Junction and Storage Temperature Range	Tj, TSTG	-55 to +150	0℃

NOTES:
1. Pulse Test with PW=300 usec, 2% Duty Cycle.
2. Reverse Recovery Tset Conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
3. Mounted on P.C. Board with 14mm2 (.013mm thick) copper pad areas.

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RATING AND CHARACTERISTIC CURVES

Fig.1-FORWARD CURRENT DERATING CURVE

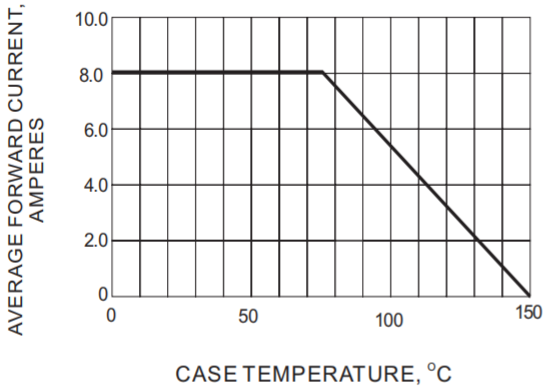


Fig.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

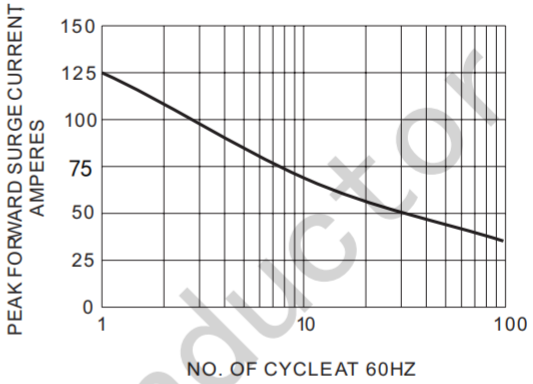


Fig.3-TYPICAL REVERSE CHARACTERISTICS

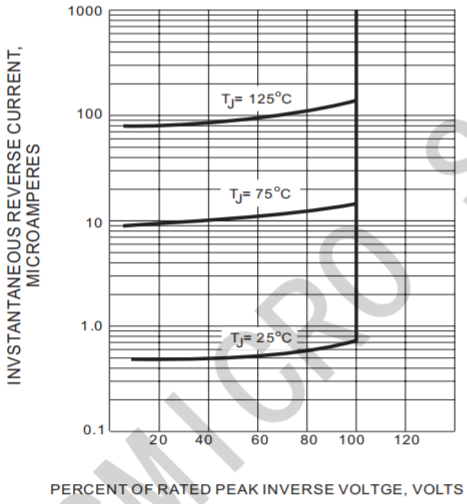
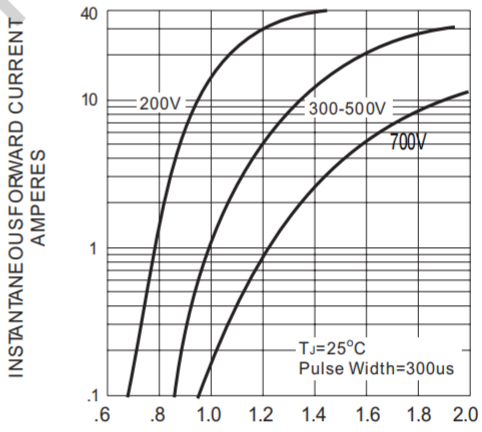


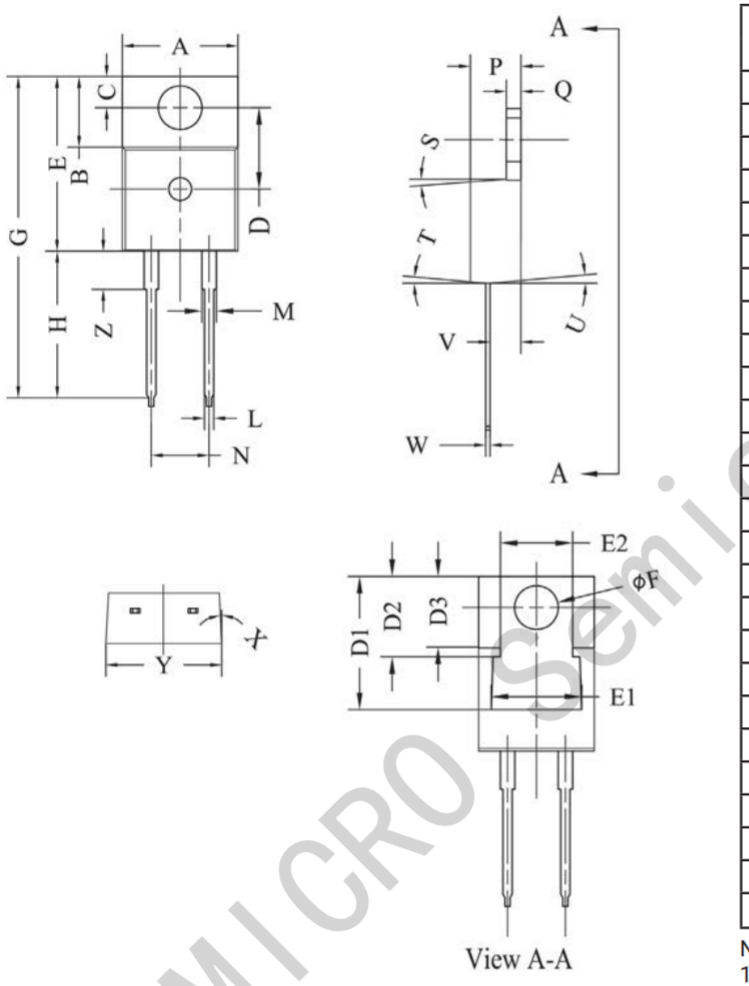
Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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Package Information

TO-220-2L



POS	Inches		Millimeters	
	Min	Max	Min	Max
A	.381	.410	9.677	10.414
B	.235	.255	5.969	6.477
C	.100	.120	2.540	3.048
D	.223	.337	5.664	8.560
D1	.457-.490		11.60-12.45 typ	
D2	.277-.303 typ		7.04-7.70 typ	
D3	.244-.252 typ		6.22-6.4 typ	
E	.590	.615	14.986	15.621
E1	.302	.326	7.68	8.28
E2	.227	251	5.77	6.37
F	.143	.153	3.632	3.886
G	1.105	1.147	28.067	29.134
H	.500	.550	12.700	13.970
L	.025	.036	.635	.914
M	.045	.055	1.143	1.550
N	.195	.205	4.953	5.207
P	.165	.185	4.191	4.699
Q	.048	.054	1.219	1.372
S	3°	6°	3°	6°
T	3°	6°	3°	6°
U	3°	6°	3°	6°
V	.094	.110	2.388	2.794
W	.014	.025	.356	.635
X	3°	5.5°	3°	5.5°
Y	.385	.410	9.779	10.414
z	.130	.150	3.302	3.810

NOTE:
1. Dimension L, M, W apply for Solder Dip Finish

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