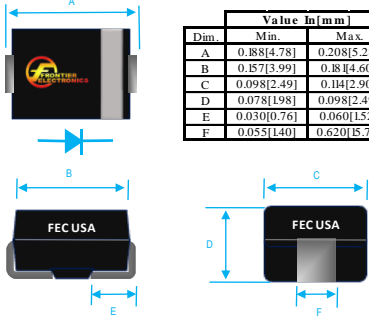


## 1A SURFACE MOUNT ULTRA FAST RECOVERY

 <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Dim</th> <th colspan="2">Value in (mm)</th> </tr> <tr> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>0.88[4.78]</td> <td>0.208[5.28]</td> </tr> <tr> <td>B</td> <td>0.157[3.99]</td> <td>0.8[4.60]</td> </tr> <tr> <td>C</td> <td>0.098[2.49]</td> <td>0.14[2.90]</td> </tr> <tr> <td>D</td> <td>0.078[1.98]</td> <td>0.098[2.49]</td> </tr> <tr> <td>E</td> <td>0.030[0.76]</td> <td>0.060[1.52]</td> </tr> <tr> <td>F</td> <td>0.055[1.40]</td> <td>0.620[15.75]</td> </tr> </tbody> </table>	Dim	Value in (mm)		Min	Max	A	0.88[4.78]	0.208[5.28]	B	0.157[3.99]	0.8[4.60]	C	0.098[2.49]	0.14[2.90]	D	0.078[1.98]	0.098[2.49]	E	0.030[0.76]	0.060[1.52]	F	0.055[1.40]	0.620[15.75]	<p><b>PRODUCT FEATURES</b></p> <ol style="list-style-type: none"> <li>1. FLAMMABILITY CLASSIFICATION: 94V-0</li> <li>2. GLASS PASSIVATED CHIP JUNCTION</li> <li>3. BUILT-IN STRAIN RELIEF</li> <li>4. LOW PROFILE</li> <li>5. ULTRA FAST SWITCHING</li> <li>6. CASE: MOLDED PLASTIC, DO-214AC (SMA-F)</li> <li>7. POLARITY: INDICATED BY CATHODE BAND</li> <li>8. WEIGHT : 0.064 GRAMS</li> <li>9. TERMINALS : PER MIL-STD-202, METHOD 208</li> <li>10. ROHS</li> </ol>
Dim		Value in (mm)																						
	Min	Max																						
A	0.88[4.78]	0.208[5.28]																						
B	0.157[3.99]	0.8[4.60]																						
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F	0.055[1.40]	0.620[15.75]																						

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO + 150°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS		SYMBOL	VALUE	UNITS
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT @ 90°C		IO	1	A
PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD		IFSM	30	A
TYPICAL THERMAL RESISTANCE (NOTE 2)		Rqja	30	°C/W
MAXIMUM REVERSE CURRENT @ 25°C		IR	10	uA

1. Cj MEASURED @ 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. THERMAL RESISTANCE FROM JUNCTION TO TERMINAL 5.0mm<sup>2</sup> (.013 mm THICK) LAND AREAS
3. REVERSE RECOVERY TEST CONDITIONS: IF=0.5A, IR=1.0A, IRR=0.25A
4. MAXIMUM FORWARD VOLTAGE @ Io DC

PART NUMBER	MAX RECURRENT PK REV VOLTAGE VRRM (V)	MAX RMS VOLTAGE VRMS (V)	MAX DC BLOCKING VOLTAGE VDC (V)	MAX FWD VOLTAGE VF (V)	TYPICAL JUNCTION CAP CJ (PF)	MAX REVERSE RECOVERY TIME nS
US1A	50	35	50	1	20	50
US1B	100	70	100	1	20	50
US1D	200	140	200	1	20	50
US1G	400	280	400	1.3	20	50
US1J	600	420	600	1.7	15	75
US1K	800	560	800	1.7	15	75
US1M	1000	700	1000	1.7	15	75

## RATING AND CHARACTERISTIC CURVES

FIG. 1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

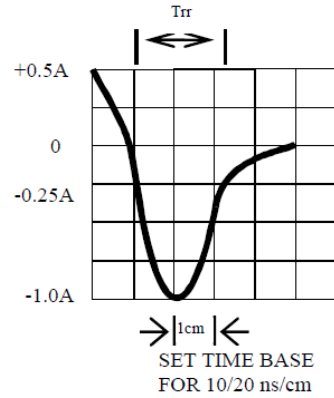
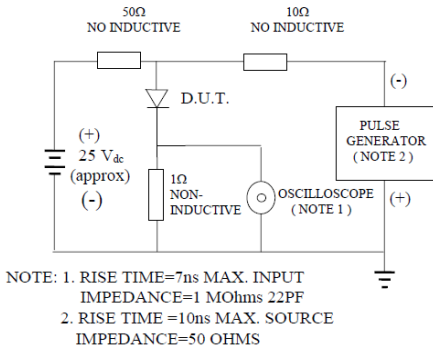


FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

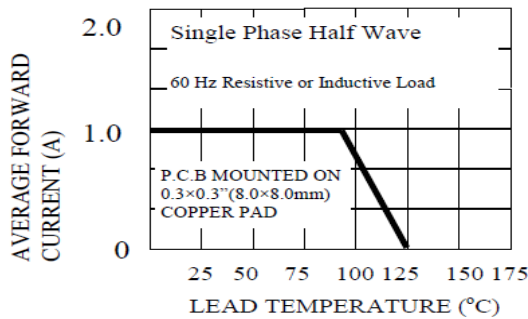


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

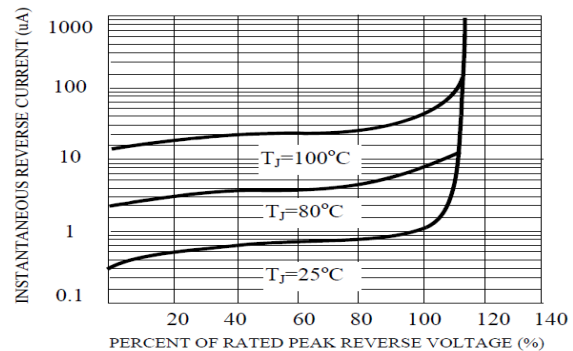


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

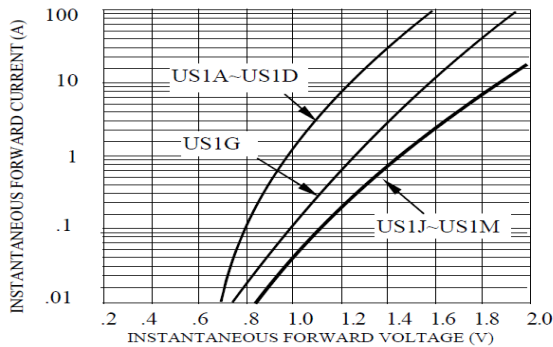
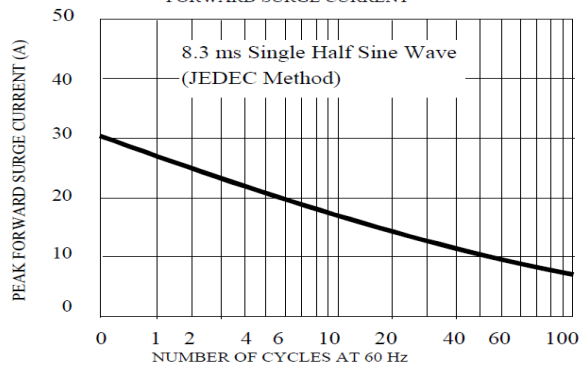


FIG. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT





# US1A THRU US1M SPECIFICATIONS

Rev. A

