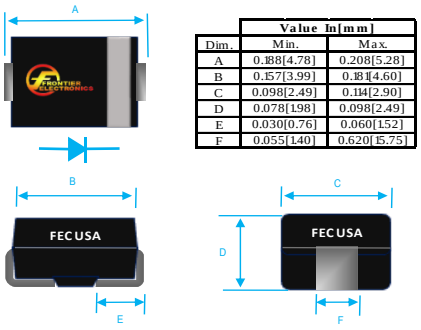
ES1A THRU ES1J SPECIFICATIONS

Rev. A

1A SURFACE MOUNT FAST EFFICIENT RECOVERY RECTIFIERS



Dim.	Value In[mm] Min.	Max.
A	0.188[4.78]	0.208[5.28]
B	0.157[3.99]	0.181[4.60]
C	0.098[2.49]	0.114[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]

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. GLASS PASSIVATED CHIP JUNCTION
3. BUILT-IN STRAIN RELIEF
4. LOW PROFILE
5. CASE: DO-214AC(SMA) MOLDED PLASTIC
6. DIMENSIONS IN INCHES AND (MILLIMETERS)
7. POLARITY: INDICATED BY CATHODE BAND
8. WEIGHT : 0.064 GRAMS
9. ROHS

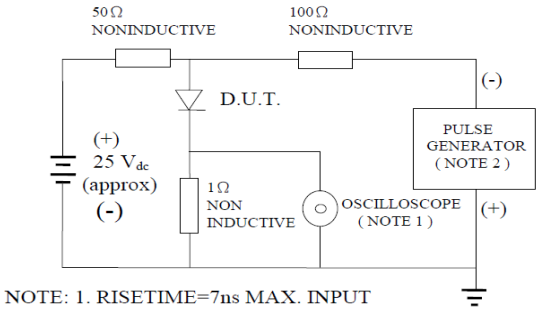
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO + 150°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	VALUE	UNITS
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT @ TL=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	℃/W
MAXIMUM REVERSE CURRENT @ 25℃	IR	10	uA
MAXIMUM REVERSE RECOVERY TIME (NOTE1)	TRR	25	nS

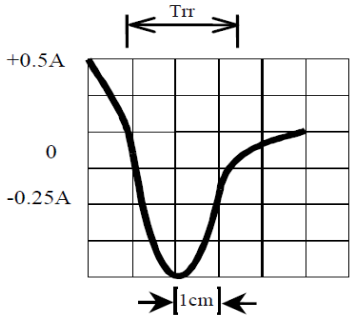
1. REVERSE RECOVERY TIME TEST CONDITION, IF=0.5A, IR=1.0A, IRR=0.25A
2. THERMAL RESISTANCE FROM JUNCTION TO TERMINAL 5.0mm2 (.013 mm THICK) LAND AREAS
3. MEASURED @ 1 MHZ AND APPLIED REVERSE VOLTAGE 0F 4.0 VOLTS
4. MAXIMUM FORWARD VOLTAGE @ Io

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)	MARKING
ES1A	50	35	50	0.98	ES1A
ES1B	100	70	100	0.98	ES1B
ES1D	200	140	200	0.98	ES1D
ES1E	300	210	300	1.3	ES1E
ES1G	400	280	400	1.3	ES1G
ES1J	600	420	600	1.75	ES1J

RATING AND CHARACTERISTIC CURVES



NOTE: 1. RISETIME=7ns MAX. INPUT IMPEDANCE=1 MEGOHM 22PF
2. RISE TIME =10ns MAX. SOURCE IMPEDANCE=50OHMS



SET TIME BASE
FOR 10/20 ns/cm

FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

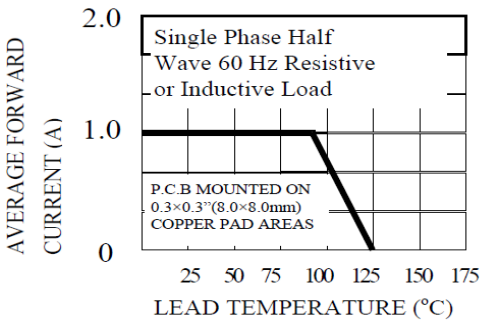


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

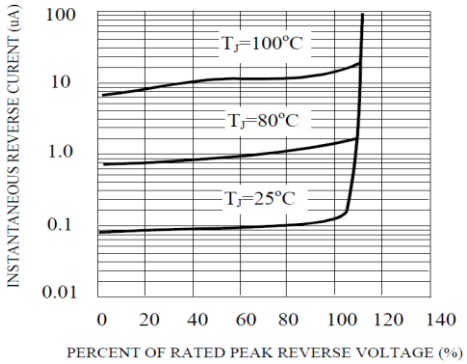


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

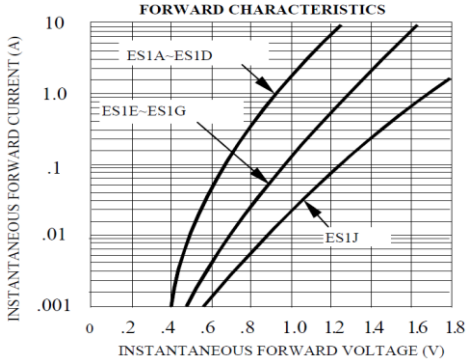


FIG. 5-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

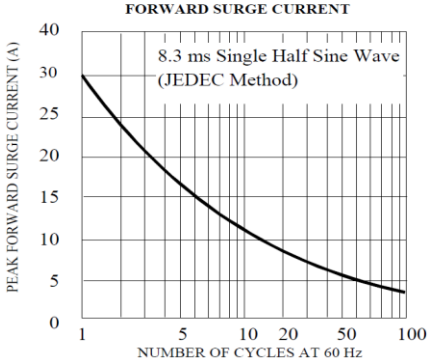


FIG. 6-TYPICAL JUNCTION CAPACITANCE