

## 3A FAST RECOVERY SURFACE MOUNT RECTIFIER

Dim.	Value Inch[mm]	
	Min.	Max.
A	0.305[7.75]	0.320[8.13]
B	0.260[6.60]	0.280[7.11]
C	0.220[5.59]	0.245[6.22]
D	0.079[2.01]	0.103[2.62]
E	0.030[0.76]	0.060[1.52]
F	0.114[2.90]	0.126[3.20]

### PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. GLASS PASSIVATED CHIP JUNCTION
3. BUILT-IN STRAIN RELIEF
4. LOW PROFILE
5. FAST SWITCHING
6. CASE: MOLDED PLASTIC BODY, DO-214AB (SMC)
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. POLARITY: INDICATED BY CATHODE BAND
9. WEIGHT : 0.21 GRAMS
10. 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%.

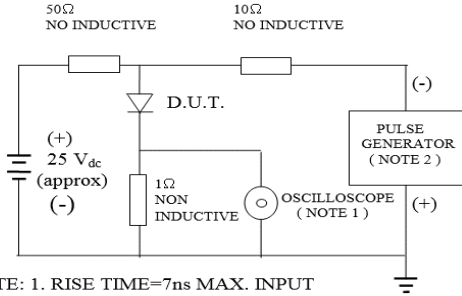
RATINGS	SYMBOL	VALUE	UNITS
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT @ TL=90°C	$I_o$	3	A
PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	125	A
TYPICAL JUNCTION CAPACITANCE(NOTE 1)	$C_J$	28	pF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	15	°C/W
MAXIMUM FORWARD VOLTAGE	$V_F$	1.3	V
MAXIMUM REVERSE CURRENT @ 25°C	$I_R$	10	uA

1. MEASURED @ 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V
2. THERMAL RESISTANCE FROM JUNCTION TO LEAD P.C.B. MOUNTED ON 0.3x0.3"(8.0x8.0mm) COPPER PAD AREAS
3. REVERSE RECOVERY TEST CONDITIONS:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $IRR=0$ .
4. MAXIMUM FORWARD VOLTAGE AT  $I_o$  DC

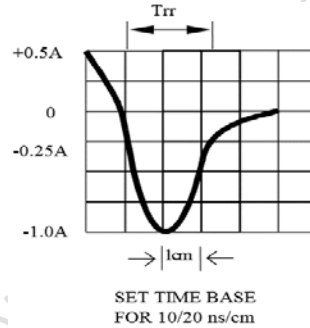
PART NUMBER	MAX RECURRENT PK REV VOLTAGE $V_{RRM}$ (V)	MAX RMS VOLTAGE $V_{RMS}$ (V)	MAX DC BLOCKING VOLTAGE $V_{DC}$ (V)	MARKING	MAX REV RECOVERY TIME $T_{RR}$ (nS)
RS3A	50	35	50	RS3A	150
RS3B	100	70	100	RS3B	150
RS3D	200	140	200	RS3D	150
RS3G	400	280	400	RS3G	150
RS3J	600	420	600	RS3J	250
RS3K	800	560	800	RS3K	500
RS3M	1000	700	1000	RS3M	500

## RATING AND CHARACTERISTIC CURVES

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



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



SET TIME BASE FOR 10/20 ns/cm

Fig. 2-MAXIMUM FORWARD CURRENT DERATING CURVE

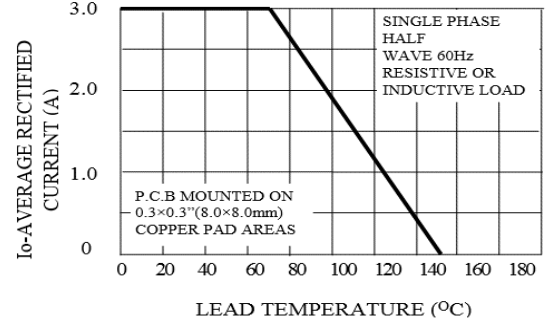


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

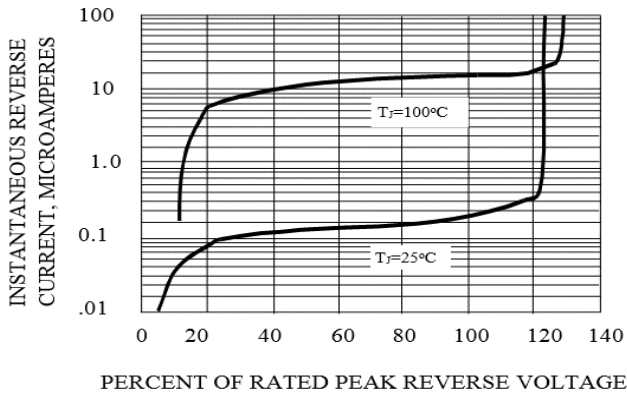


Fig. 4-MAXIMUM FORWARD SURGE CURRENT

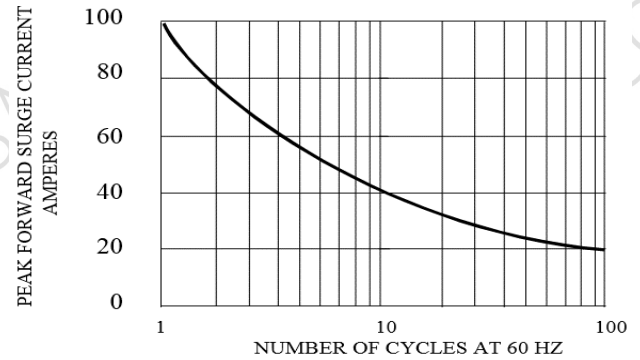


FIG. 6-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

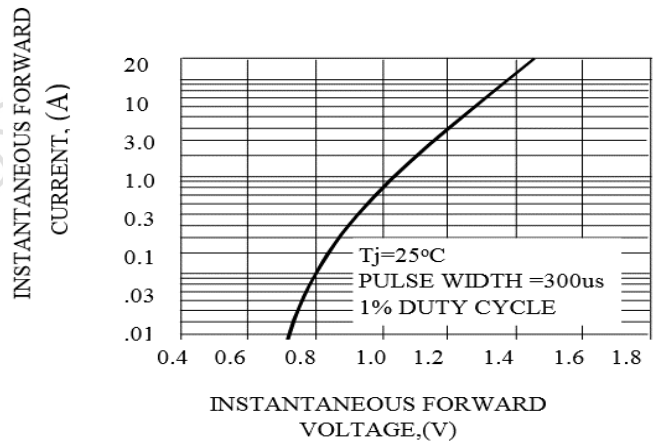


FIG. 5-TYPICAL JUNCTION CAPACITANCE

