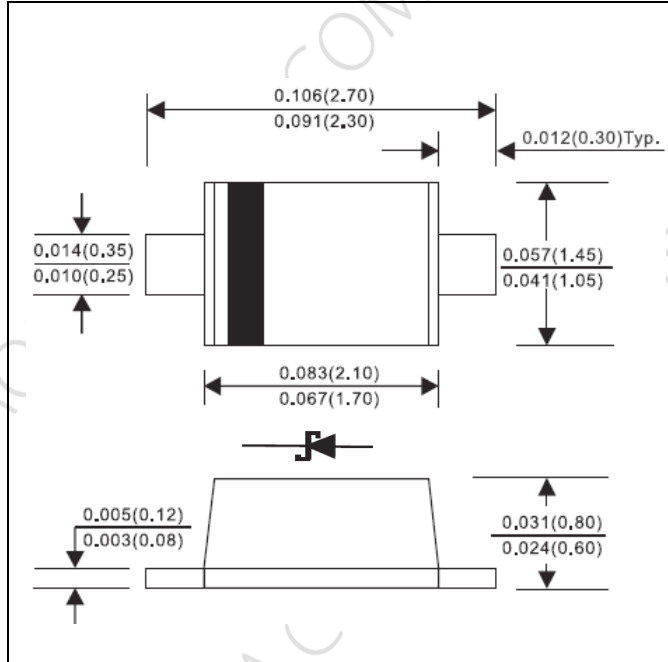


## 1A SMD SCHOTTKY BARRIER RECTIFIERS, 20V-40V



### PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. EXCELLENT REVERSE LEAKAGE CURRENT AND THERMAL RESISTANCE
3. HIGH CURRENT CAPABILITY, LOW POWER LOSS
4. SILICON EPITAXIAL PLANAR CHIP, METAL SILICON JUNCTION
5. GUARDRING FOR OVERVOLTAGE PROTECTION
6. CASE: TRANSFER MOLDED, SOD-323S
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-750 METHOD 2026
9. WEIGHT: 0.004 GRAMS
10. RoHS COMPLIANT, ADD SUFFIX "H" FOR HALOGEN FREE  
i.e. FM120-NS-H: RoHS COMPLIANT/HALOGEN FREE

## ELECTRICAL CHARACTERISTICS

### MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED ) AND ELECTRICAL CHARACTERISTICS

RATING	SYMBOL		UNITS
MAXIMUM FORWARD RECTIFIED CURRENT	$I_o$	1	A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	25	A
TYPICAL JUNCTION CAPACITANCE BETWEEN TERMINALS (NOTE 1)	$C_J$	120	pF
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 65 TO +175	$^\circ\text{C}$
OPERATING JUNCTION TEMPERATURE RANGE	$T_J$	- 55 TO +125	$^\circ\text{C}$
MAX. DC REVERSE CURRENT AT RATED DC BLOCKING VOLTAGE $T_J = 25^\circ\text{C}$	$I_R$	0.5	mA
MAX. DC REVERSE CURRENT AT RATED DC BLOCKING VOLTAGE $T_J = 100^\circ\text{C}$	$I_R$	10	mA
TYPICAL THERMAL RESISTANCE	$R_{\theta JA}$	120	$^\circ\text{C/W}$
	$R_{\theta JC}$	100	$^\circ\text{C/W}$

PART NUMBER	MAX RECURRENT PK REVERSE VOLTAGE/DC BLOCKING $V_{RRM}/V_R$ (V)	MAX $V_{RMS}$ (V)	TYPICAL FORWARD VOLTAGE AT $I_F = 1\text{A}$ $V_F$ (V)	MARKING
FM120-NS	20	14	0.55	12
FM130-NS	30	21	0.55	13
FM140-NS	40	28	0.55	14

NOTE : 1. MEASURE AT 1MHz WITH 4VDC REVERSE VOLTAGE APPLIED .  
2. CURRENT RATING IS BASED ON SINGLE PHASE, 1/2 WAVE, 60HZ, RESISTIVE, OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.



## RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

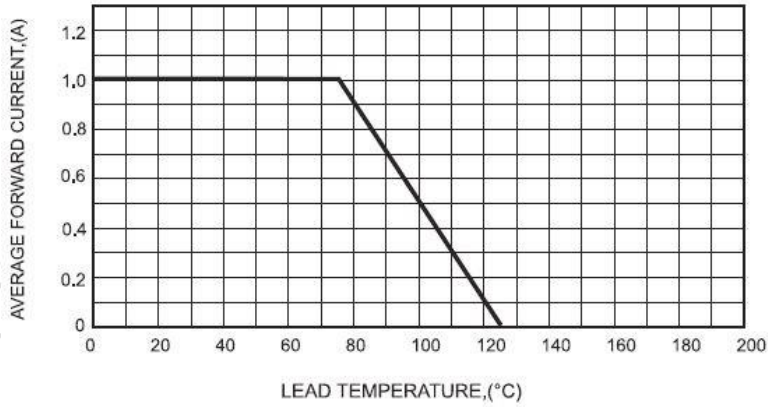


FIG.2-TYPICAL FORWARD CHARACTERISTICS

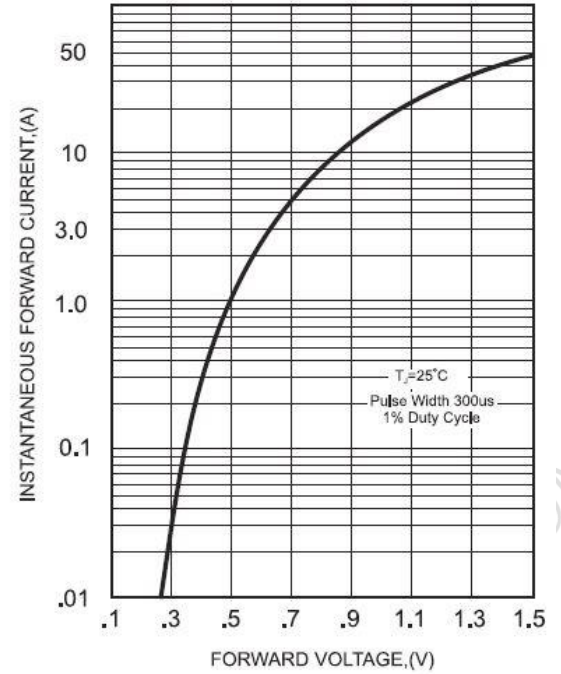


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

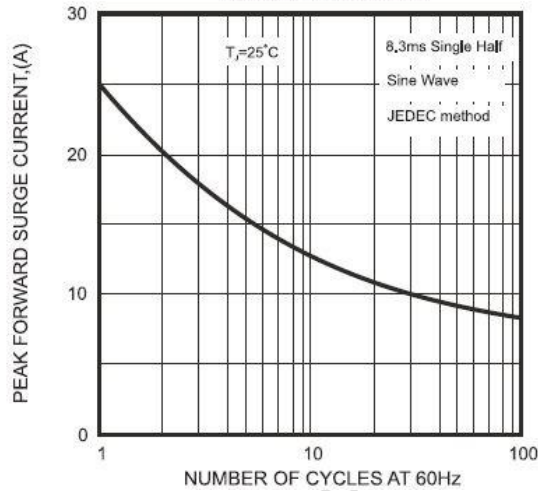


FIG.4-TYPICAL JUNCTION CAPACITANCE

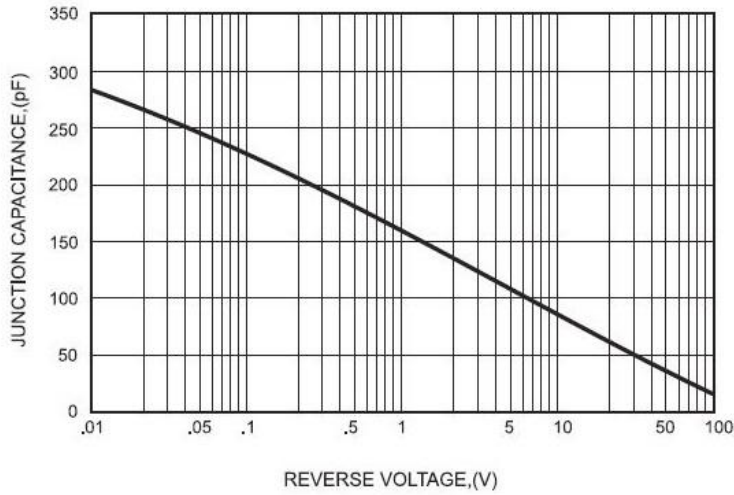
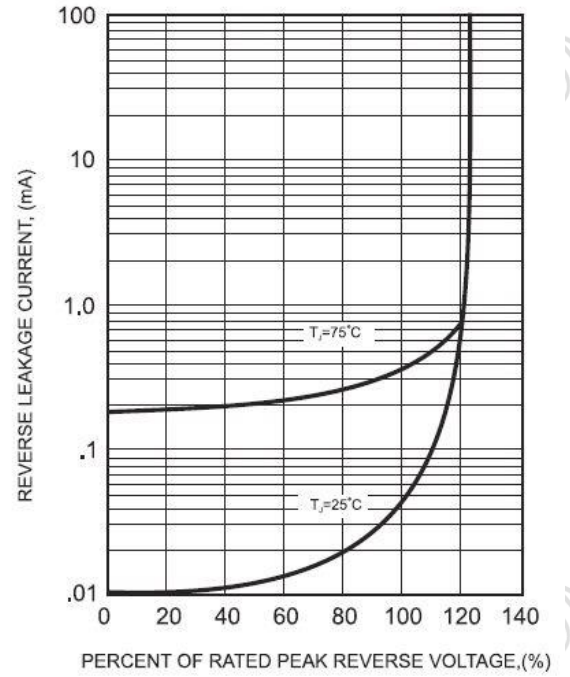
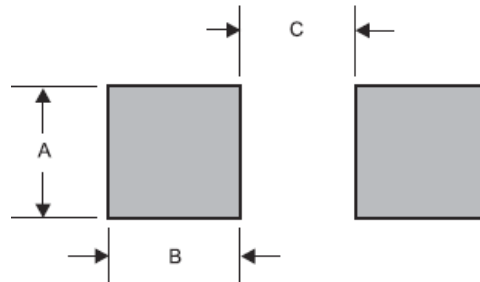


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



## LAYOUT RECOMMENDATION



PACKAGE	A	B	C
SOD-323S	0.024 (0.60)	0.031 (0.80)	0.059 (1.50)