

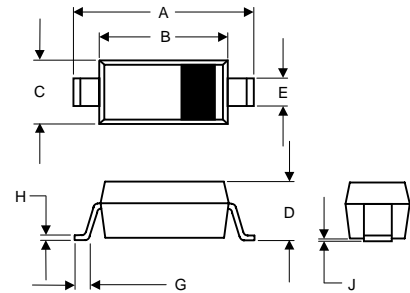
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free



PACKAGE DIMENSIONS

SOD-123
PLASTIC PACKAGE



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.55	3.85	0.140	0.152
B	2.55	2.85	0.100	0.112
C	1.40	1.80	0.550	0.071
D	-----	1.15	-----	0.045
E	0.30	0.78	0.120	0.031
G	0.15	-----	0.006	-----
H	-----	0.25	-----	0.001
J	-----	0.15	-----	0.006

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- * For Surface mounted applications.
- * Exceeds environmental standards of MIL-S-19500 / 228
- * Low leakage current

MECHANICAL DATA

- * Case : Molded plastic, JEDEC SOD-123 / MINI SMA
- * Terminals : Solder plated, solderable per MIL-STD-750 Method 2026
- * Polarity : Indicated by cathode band
- * Mounting Position : Any
- * Weight : 0.04 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig. 1	I_o			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			30	A
Reverse Current	$V_R = V_{RRM} T_A = 25^\circ C$	I_R			0.5	mA
	$V_R = V_{RRM} T_A = 125^\circ C$				10	mA
Thermal resistance	Junction to ambient	R_{JA}		98		°C / W
Diode junction capacitance	f=1MHz and applied 4vDC reverse voltage	C_J		120		pF
Storage temperature		T_{STG}	-55		+150	°C

TYPE NUMBER	MARKING CODE	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature (°C)
SM120S	12	20	14	20	0.50	-55 to +125
SM140S	14	40	28	40		
SM160S	16	60	42	60	0.70	-55 to +150
SM1100S	10	100	70	100	0.85	

- *1 Repetitive peak reverse voltage
- *2 RMS voltage
- *3 Continuous reverse voltage
- *4 Maximum forward voltage

RATING AND CHARACTERISTIC CURVES (SM120S THRU SM1100S)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

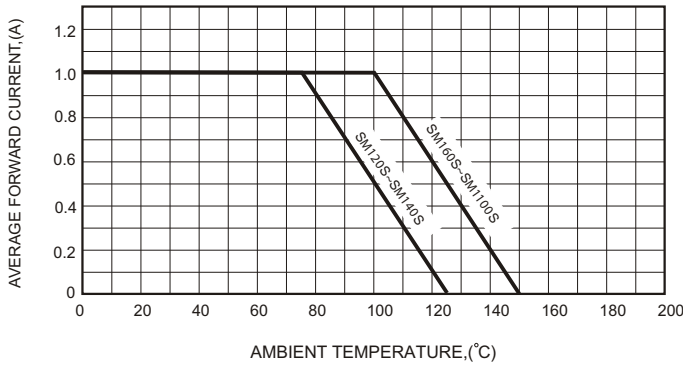


FIG.2-TYPICAL FORWARD CHARACTERISTICS

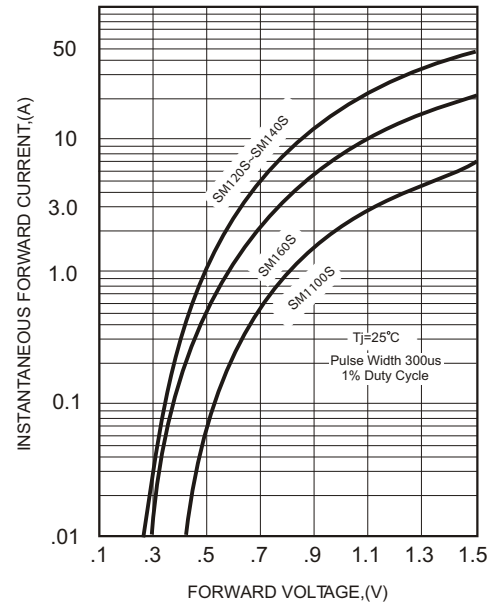


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

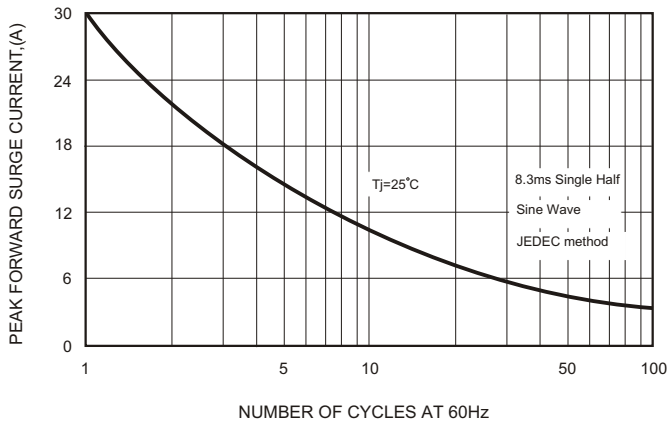


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

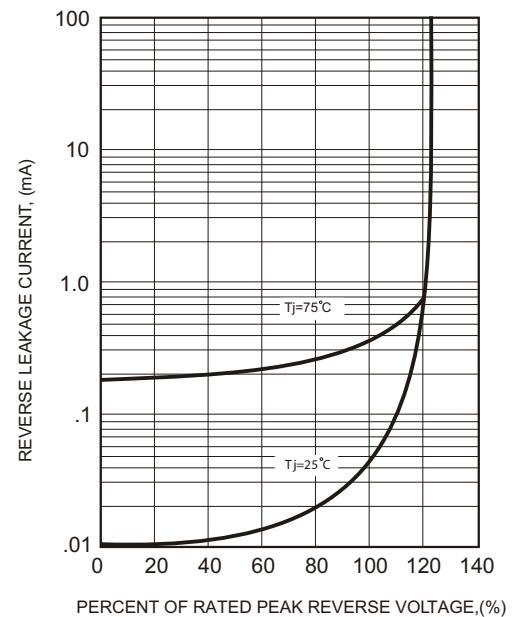


FIG.4-TYPICAL JUNCTION CAPACITANCE

