Elektronische Bauelemente

SM320AS~SM3200AS

Voltage 20V ~ 200V

3.0 Amp Surface Mount Schottky Barrier Rectifiers

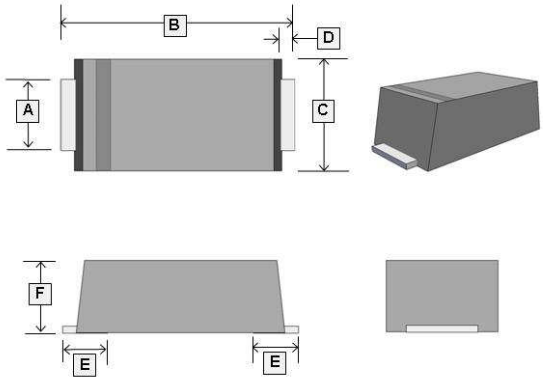
RoHS Compliant Product

A suffix of “-C” specifies halogen-free and RoHS Compliant

FEATURES

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability
- Guardring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

SMA-S



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.4	1.6	D	0.3TYP.	
B	5.0	5.4	E	1.0 TYP.	
C	2.3	2.7	F	1.5	1.8

MECHANICAL DATA

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC / SMA-S
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.05 gram

MARKING

Product	Marking Code	Product	Marking Code
SM320AS	SK32	SM380AS	SK38
SM330AS	SK33	SM3100AS	S310
SM340AS	SK34	SM3150AS	S315
SM350AS	SK35	SM3200AS	S320
SM360AS	SK36		

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA-S	2K	7 inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS(T_A=25℃ unless otherwise specified)

Parameter		Symbol	Part Number									Unit
			SM 320AS	SM 330AS	SM 340AS	SM 350AS	SM 360AS	SM 380AS	SM 3100AS	SM 3150AS	SM 3200AS	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage		V_{RMS}	14	21	28	35	42	56	70	105	140	V
Continuou reverse voltage		V_R	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current, See Fig.1		I_O	3									A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load		I_{FSM}	80									A
Maximum Instantaneous Forward Voltage @ I_F=3A		V_F	0.5			0.7		0.85		0.92		V
Maximum Reverse Current at Rated VR Per Diode [3]	T_A=25℃	I_R	0.5									mA
	T_A=100℃		20									
Typical Junction Capacitance [1]		C_J	250									pF
Typical Thermal Resistance		$R_{\theta JC}$	30									℃ / W
Typical Thermal Resistance		$R_{\theta JA}$	60									℃ / W
Operating Temperature		T_J	-55~125			-55~150						℃
Storage Temperature		T_{STG}	-65~175									℃

Note:
1. f=1MHz and applied 4V DC reverse voltage.

CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

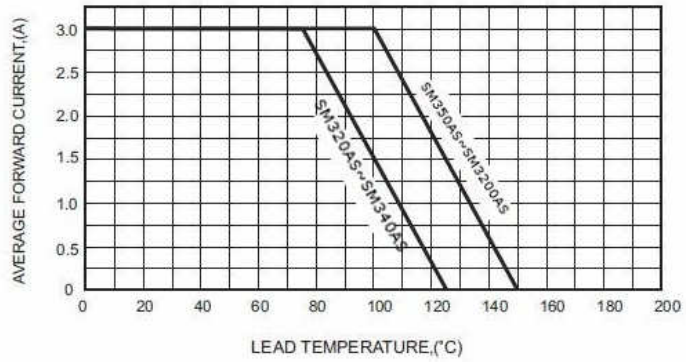


FIG.2-TYPICAL FORWARD CHARACTERISTICS

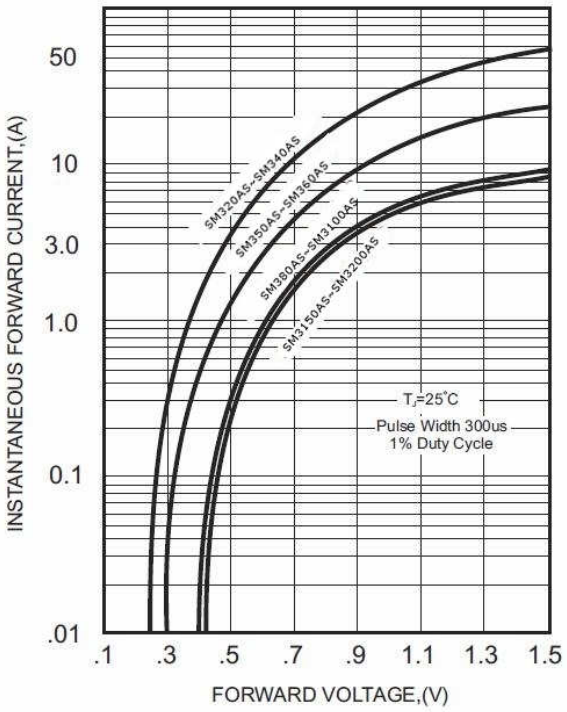


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

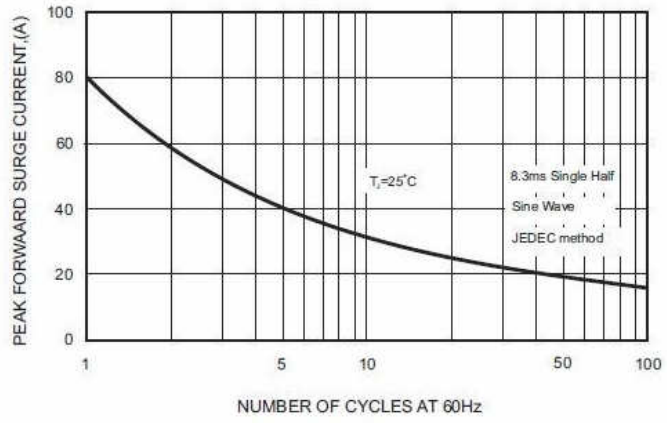


FIG.4-TYPICAL JUNCTION CAPACITANCE

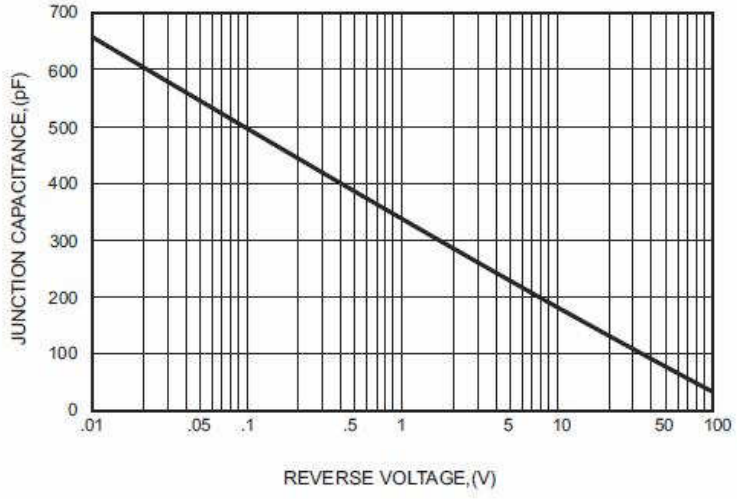


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

