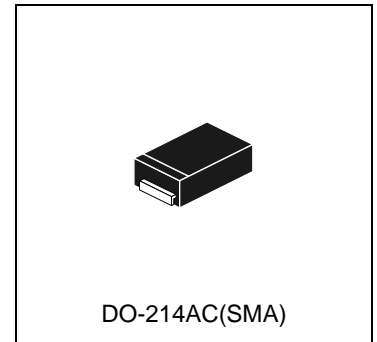




# HSMA320 thru HSMA3100

Schottky Barrier Rectifiers  
(Reverse Voltage 20 to 100V, Forward Current 3A)



## Features

- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capabilit
- Electrostatic discharge(ESD) test under IEC6100-4-2 standard >15kV(Air) & 8kV(Contact)

## Mechanical Data

- Case: JEDEC DO-214AC(SMA) molded plastic
- Polarity: Indicated by cathode band
- Weight: 0.002 ounce, 0.064 gram

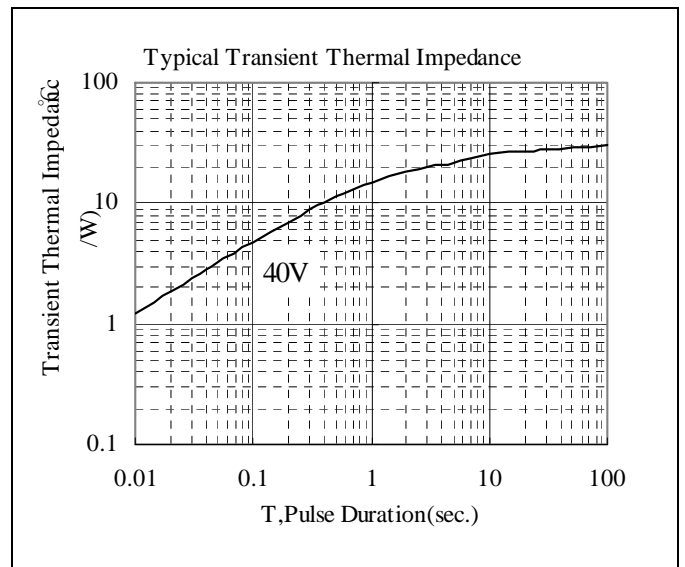
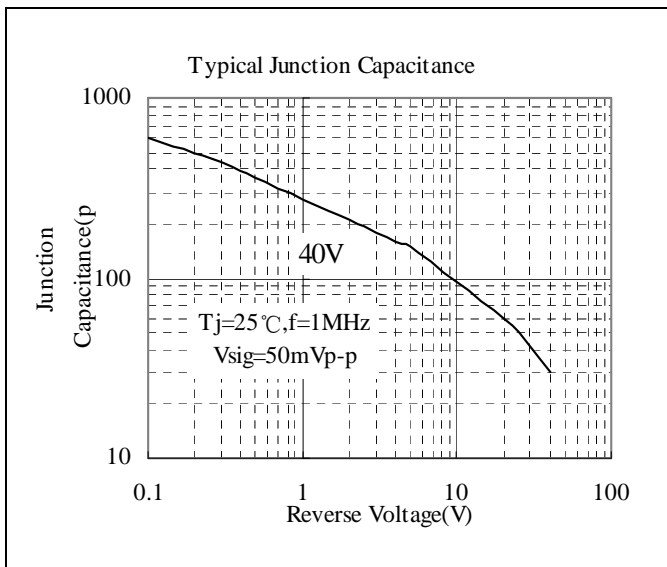
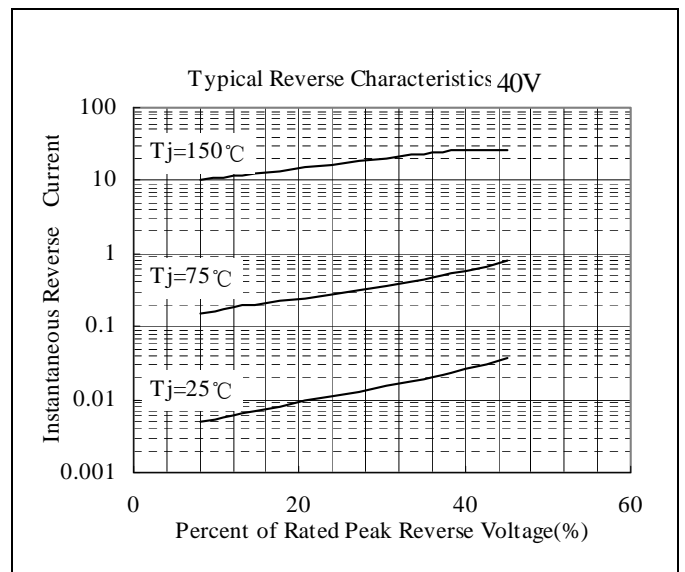
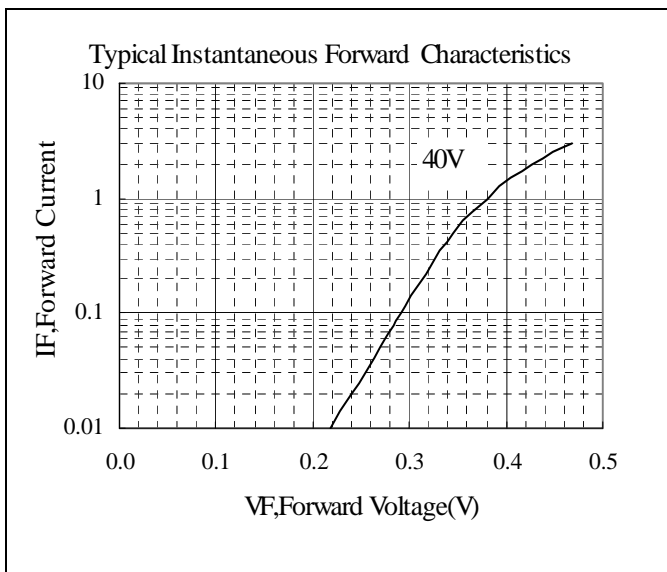
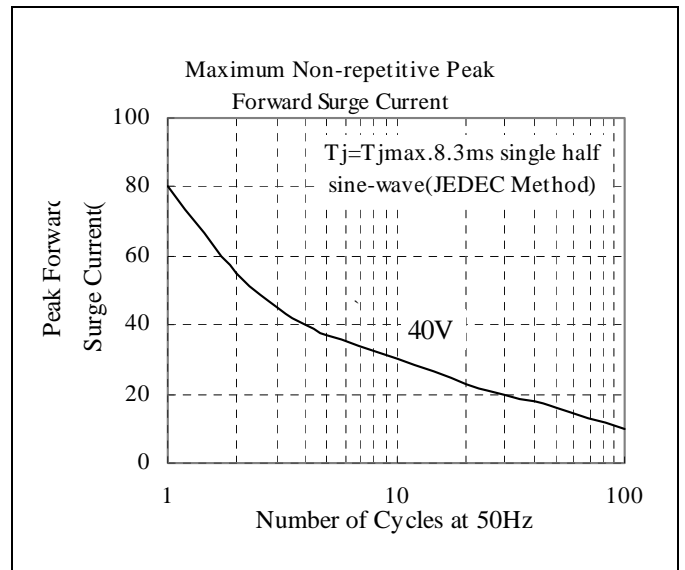
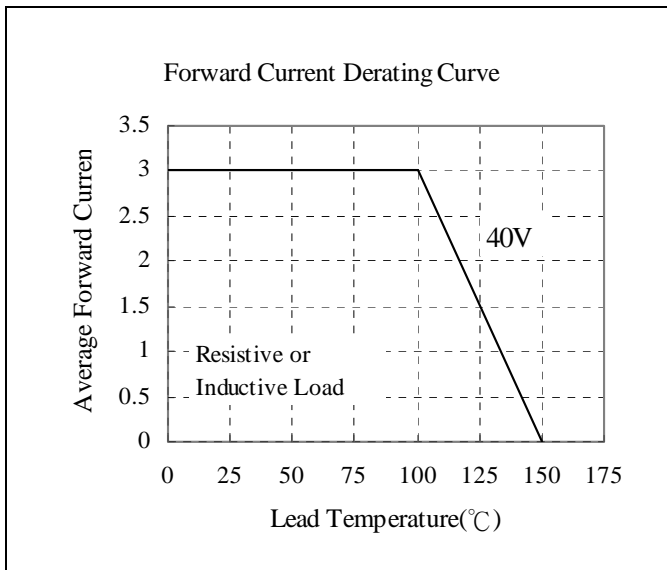
## Maximum Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load. Derate current by 20%.

Ratings	Symbol	HSMA 320	HSMA 330	HSMA 340	HSMA 345	HSMA 350	HSMA 360	HSMA 380	HSMA 3100	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	V
Surge Peak Reverse Voltage	$V_{RSM}$	14	21	28	31.5	35	42	57	71	V
DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	V
Average Forward Rectified Current ( $T_A=75^\circ\text{C}$ )	$I_{FAV}$	3								A
Peak Forward Surge Current, 50Hz Half Sine-wave ( $T_A=25^\circ\text{C}$ )	$I_{FSM}$	80								A
Repetitive Peak Forward C ( $f>15\text{Hz}$ )	$I_{FRM}$	12								A
Instantaneous Forward Voltage	$V_F$	0.48	0.52		0.7		0.8			V
Leakage Current ( $T_J=25^\circ\text{C}$ , $V_R=V_{RRM}$ )	$I_R$	0.1								mA
Leakage Current ( $T_J=100^\circ\text{C}$ , $V_R=V_{RRM}$ )		20								mA
Typical Junction Capacitance	$C_J$	170								pF
Rating for Fusing, $t<10\text{ms}$ ( $T_A=25^\circ\text{C}$ )	$i^2t$	12.5								$\text{A}^2\text{s}$
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	50								$^\circ\text{C}/\text{W}$
Thermal Resistance Junction to Lead	$R_{\theta JL}$	15								$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-65 to +125								$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150								$^\circ\text{C}$
ESD Protection Voltage	$V_{ESD}$	>8								KV



### Characteristics Curve





## DO-214AC(SMA) Dimension

2-Lead DO-214AC(SMA) Plastic  
Surface Mounted Package  
HSMC Package Code: SMA

**Marking:**

**Product Series**  
 HSMA320: 32A  
 HSMA330: 33A  
 HSMA340: 34A  
 HSMA345: 34A  
 HSMA350: 35A  
 HSMA360: 36A  
 HSMA380: 38A  
 HSMA3100: 3AA

**Product Series**  
 HSMB320: 32A  
 HSMB330: 33A  
 HSMB340: 34A  
 HSMB345: 34A  
 HSMB350: 35A  
 HSMB360: 36A  
 HSMB380: 38A  
 HSMB3100: 3AA

Halogen free Mark  
 Green free: "••" (None)  
 Normal: None

**Note:**  
 Green label is used for pb-free packing

DIM	Min.	Max.
A	1.27	1.63
B	2.40	2.65
C	4.00	4.60
D	1.90	2.25
E	0.80	1.50
F	0.10	0.20
G	4.80	5.20
H	0.15	0.31

Unit: mm

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