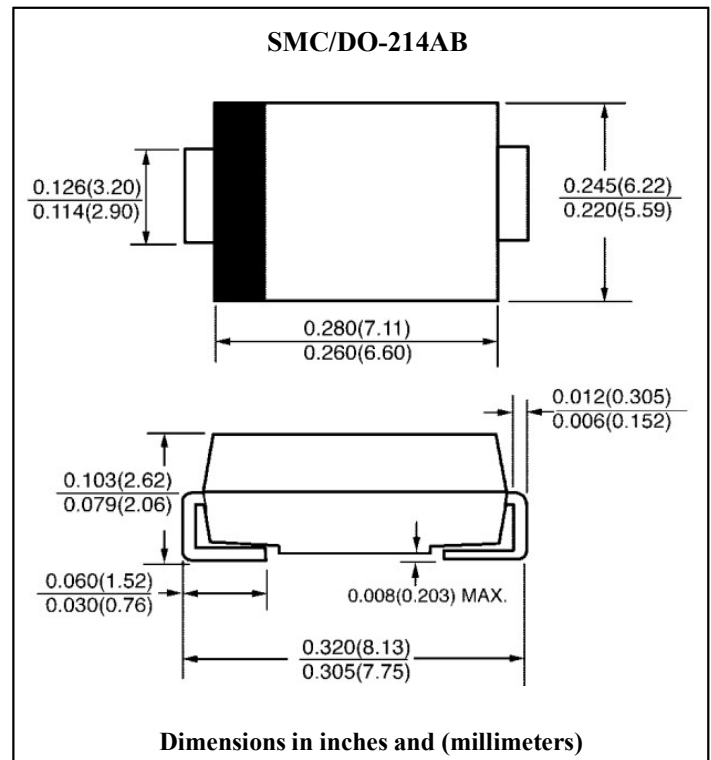
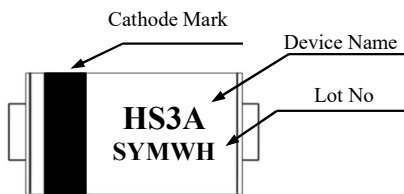


**Surface Mount High Efficient Rectifiers**  
**Reverse Voltage 50 to 1000 Volts Forward Current 3.0 Amperes**
**Features**

- Glass passivated junction chip
- For surface mounted application
- Low forward voltage drop
- Low profile package
- Easy pick and place
- High surge current capability
- For switching for high efficiency
- Plastic material used carries Underwriters Laboratory Classification 94V-0
- Epitaxial construction
- High temperature soldering : 260°C /10 seconds at terminals

**Mechanical Data**

- Case : JEDEC DO-214AB Molded plastic
- Terminals : Pure tin plated, lead free
- Polarity : Indicated by cathode band
- Packaging : 16mm tape per EIA STD RS-481
- Weight : 0.21 grams

**Marking**

**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%

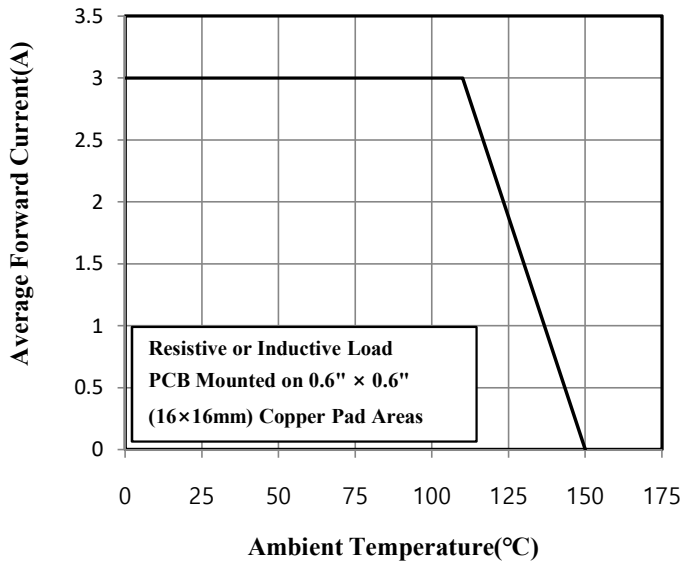
Parameter	Symbol	HS3A	HS3B	HS3D	HS3F	HS3G	HS3J	HS3K	HS3M	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current at $T_L$ (See Fig.1)	$I_F(AV)$	3.0								A	
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	150								A	
Maximum Instantaneous Forward Voltage @ 3.0A	$V_F$	1.0				1.3		1.7		V	$T_a=25^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10								uA	$T_a=25^\circ C$
		200								uA	$T_a=100^\circ C$
Maximum Reverse Recovery Time	trr	50				75				ns	Note 1
Typical Junction Capacitance	$C_j$	80				50				°C /W	Note 2
Operation Junction Temperature Range	$T_J$	-55 to +150								°C	
Storage Temperature Range	$T_{STG}$	-55 to +150								°C	

Note 1. Reverse Recovery Test Conditions :  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{rr}=0.25A$

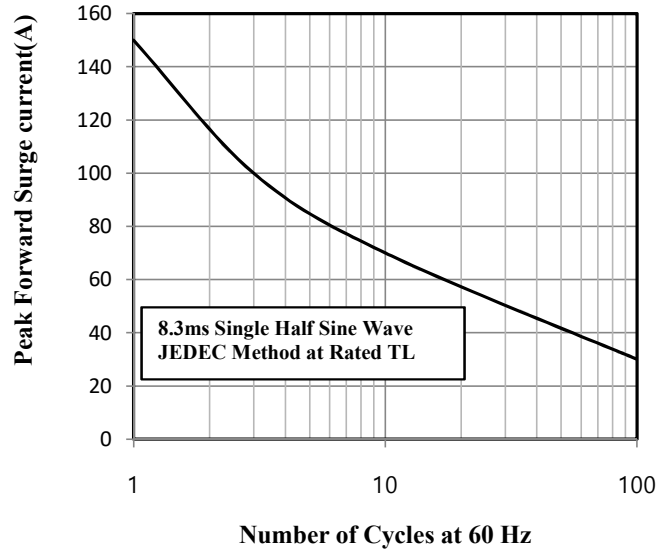
Note 2. Measured at 1MHz and Applied VR = 4.0 Volts

Ratings and Characteristics Curves ( $T_a=25^\circ\text{C}$  unless otherwise noted)

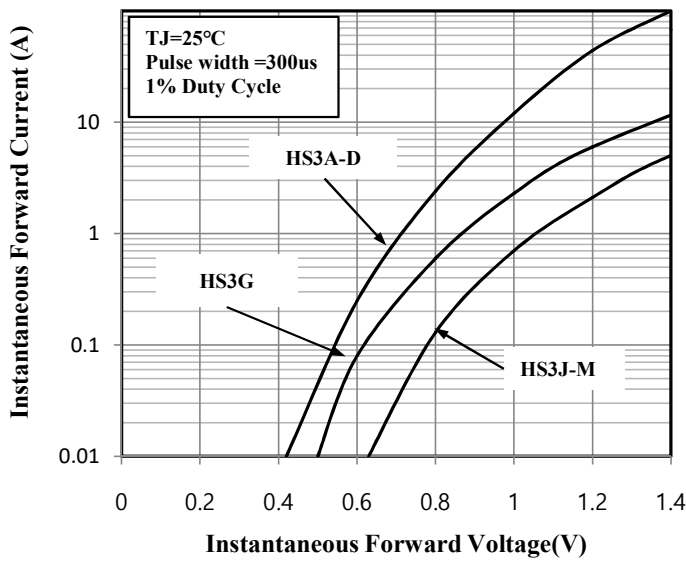
**Fig.1 Forward Current Derating Curve**



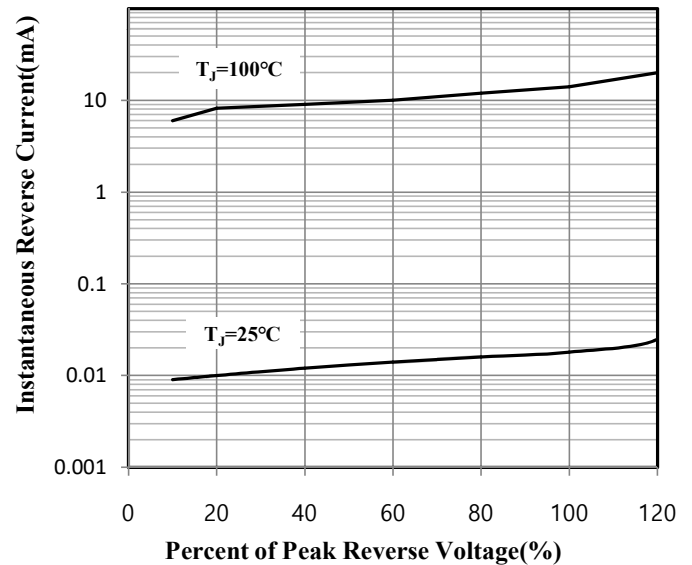
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig. 5 Reverse Recovery Time Characteristic and Test Circuit Diagram**

