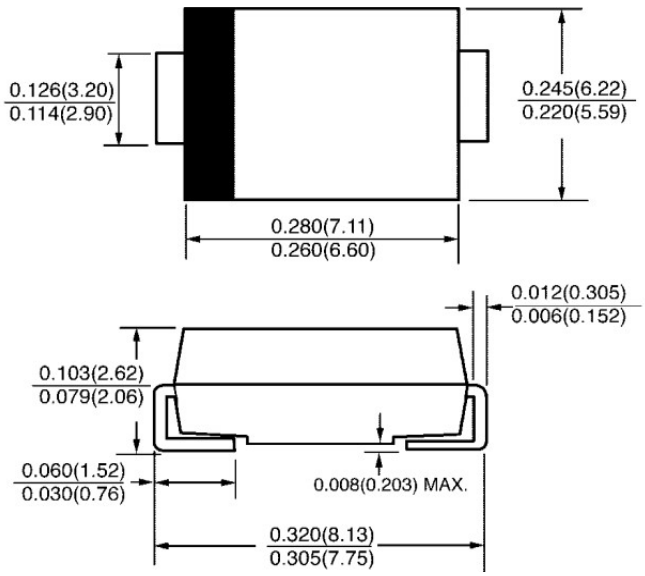
Surface Mount High Efficient Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 5.0 Amperes

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-O
- Epitaxial construction
- High temperature soldering : 260℃ /10 seconds at terminals

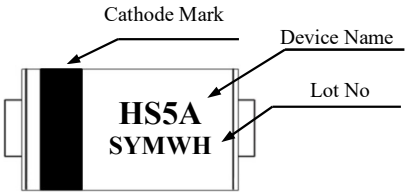
Mechanical Data
- Case : JEDEC DO-214AB Molded plastic
- Terminals : Pure tin plated, lead free
- Polarity : Indicated by cathode band
- Packaging : 16mm tape per EIA STD RS-481
- Weight : 0.21 grams

SMC/DO-214AB



Dimensions in inches and (millimeters)

Marking



Maximum Ratings & Electrical Characteristics

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

Parameter	Symbol	HS5A	HS5B	HS5D	HS5F	HS5G	HS5J	HS5K	HS5M	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)	$I_F(AV)$	5.0								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 @ 5.0A	V_F	1.00			1.30		1.70			V	Ta=25℃
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10.0								uA	Ta=25℃
		250								uA	Ta=100℃
Maximum Reverse Recovery Time (I_F = 0.5A, I_R = 1.0A, Irr=0.25A)	trr	50					75			ns	
Typical Thermal Resistance	Rth(j-l)	13								℃ /W	Note 1
	Rth(j-a)	47								℃ /W	
Operation Junction Temperature Range	T_J	-55 to +150								℃	
Storage Temperature Range	T_{STG}	-55 to +150								℃	

Note 1. Measured on P.C.Board with Size 0.3"×0.3" (8mm×8mm) Copper Pad Areas.

Ratings and Characteristics Curves (Ta=25℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

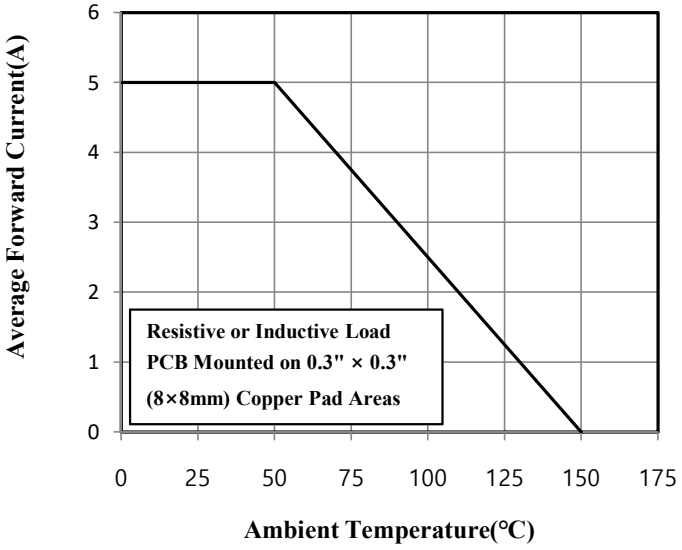


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

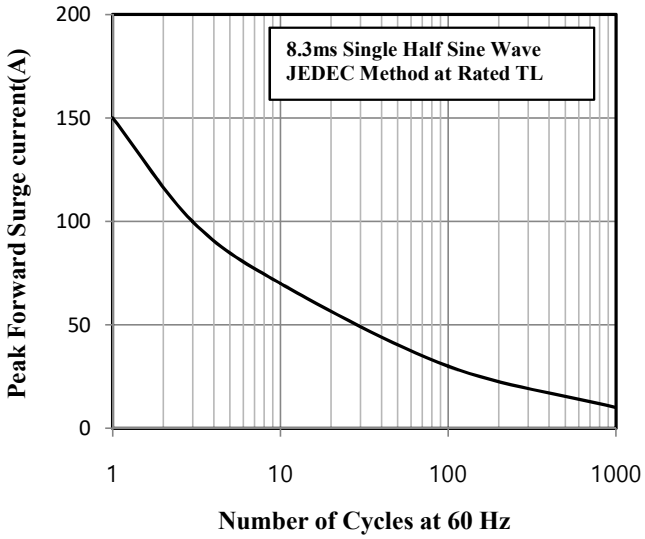


Fig.3 Typical Instantaneous Forward Characteristics

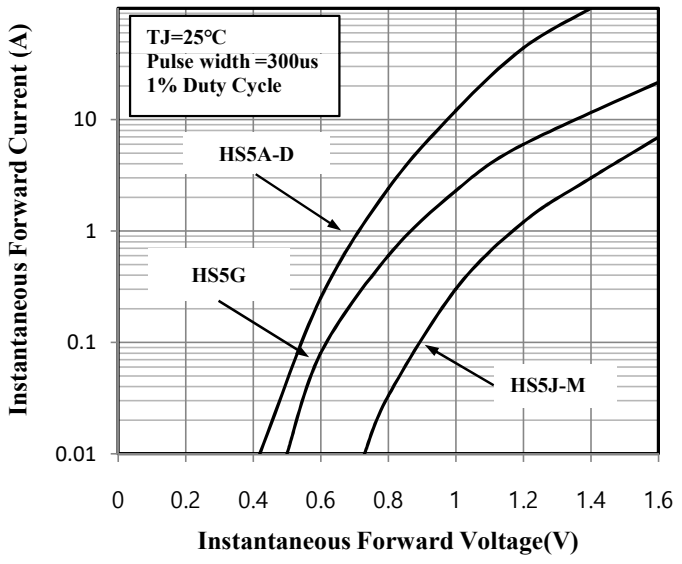


Fig.4 Typical Reverse Charateristics

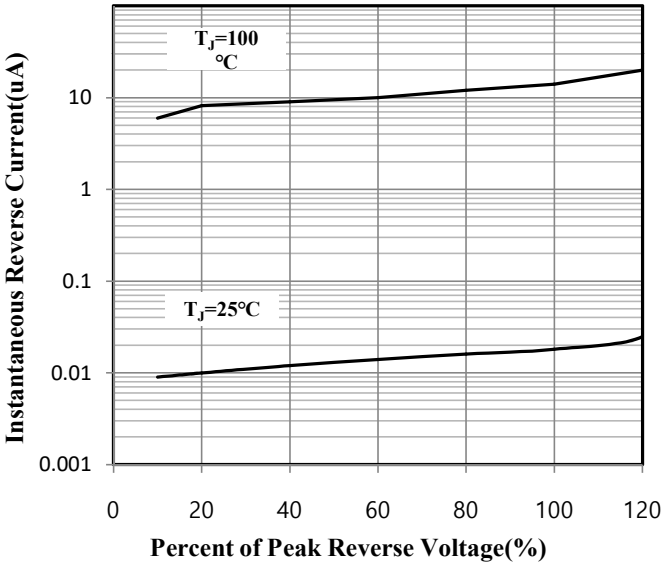


Fig. 5 Reverse Recovery Time Charateristic and Test Circuit Diagram