

## 5.0 AMP Surface Mount Schottky Barrier Rectifiers

### Features

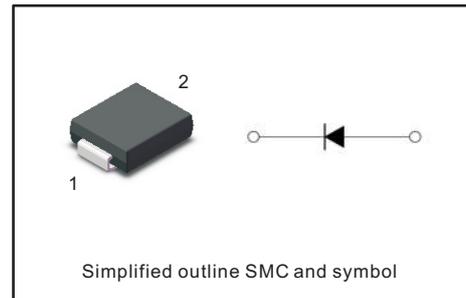
Low Power Loss, High Efficiency  
Ideally Suited for Automatic Assembly  
For Use in Low Voltage Application  
Plastic Case Material has UL Flammability  
Classification Rating 94V-0

### Mechanical Data

Case: Molded plastic SMC  
Terminals: Plated leads solderable per  
MIL-STD-750, Method 2026 guaranteed  
Polarity: as marked as case  
Mounting Position: Any  
Marking: Type Number

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



## Maximum Ratings And Electrical Characteristics

Type Number	SYMBOL	SS 52	SS 53	SS 54	SS 545	SS 55	SS 56	SS 58	SS 510	SS 515	SS 520	SS 525	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	5.0											A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave @ $T_j = 125^\circ\text{C}$ Superimposed On Rated Load (JEDEC Method)	$I_{FSM}$	100 80											A	
Non-Repetitive Peak Forward Surge Current 1.0ms Single half sine-wave @ $T_j = 125^\circ\text{C}$ Superimposed On Rated Load (JEDEC Method)	$I_{FSM}$	200 160											A	
10000 times of the wave surge current (time width 1ms, time interval 3s)	$I_{FSM}$	70											A	
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	33.615											$\text{A}^2\text{s}$	
Forward Voltage @ $I_F = 5.0\text{A}$	$V_{FM}$	0.55		0.7		0.85		0.92		0.95		V		
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	$I_R$	0.1						0.05						mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		10						5						
Typical Junction Capacitance (Note 1)	$C_J$	170						100						pF
Typical Thermal Resistance per leg	$R_{\theta JA}$	78											$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150											$^\circ\text{C}$	

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Fig. 1 Forward Current Derating Curve

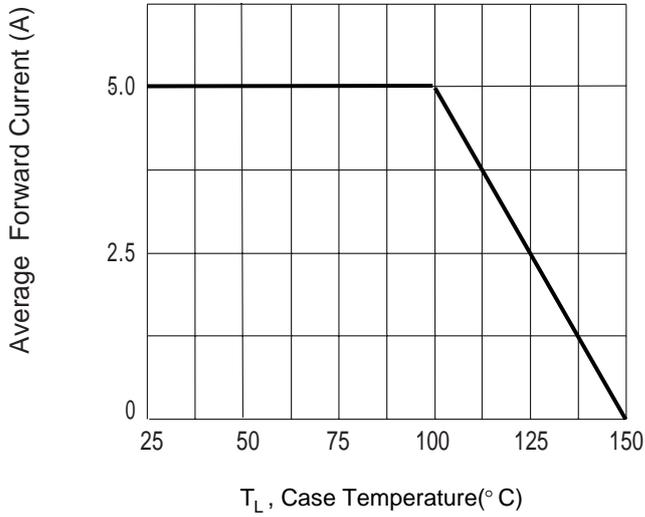


Fig. 2 Typ. Forward Characteristics

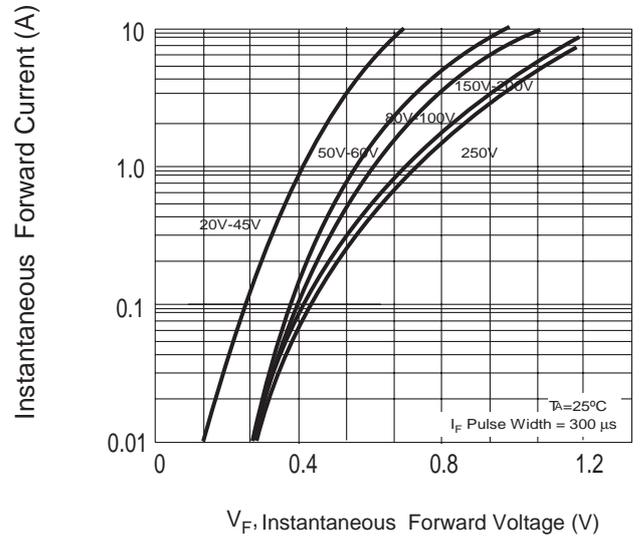


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

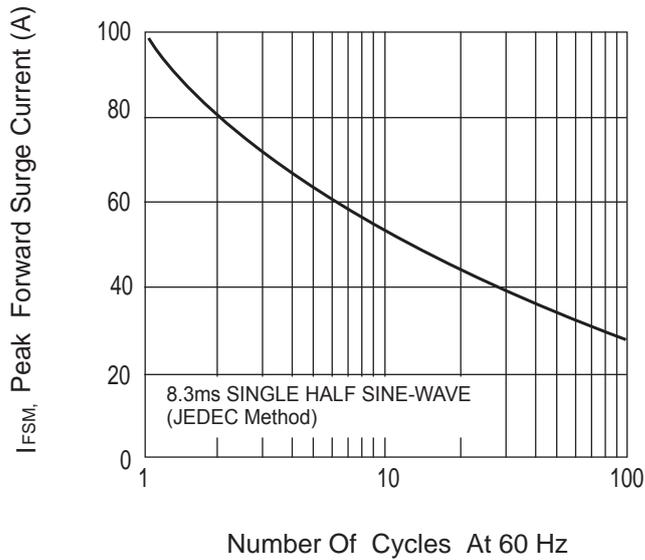


Fig.4 Typical Reverse Characteristics

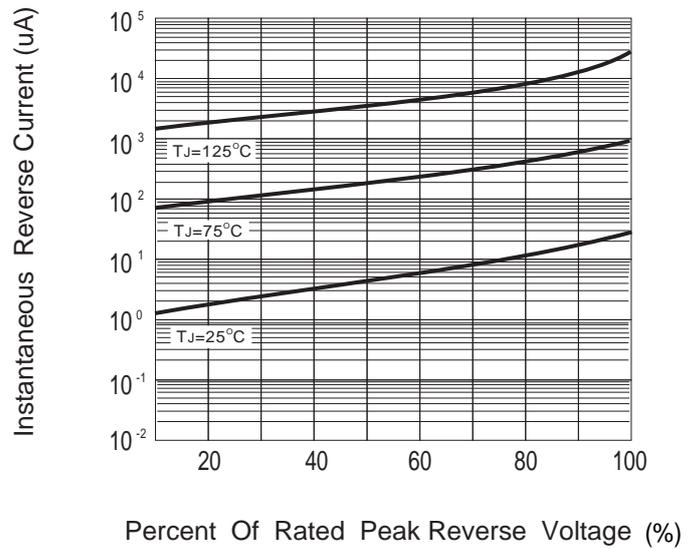
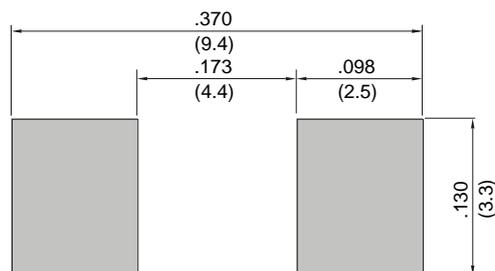
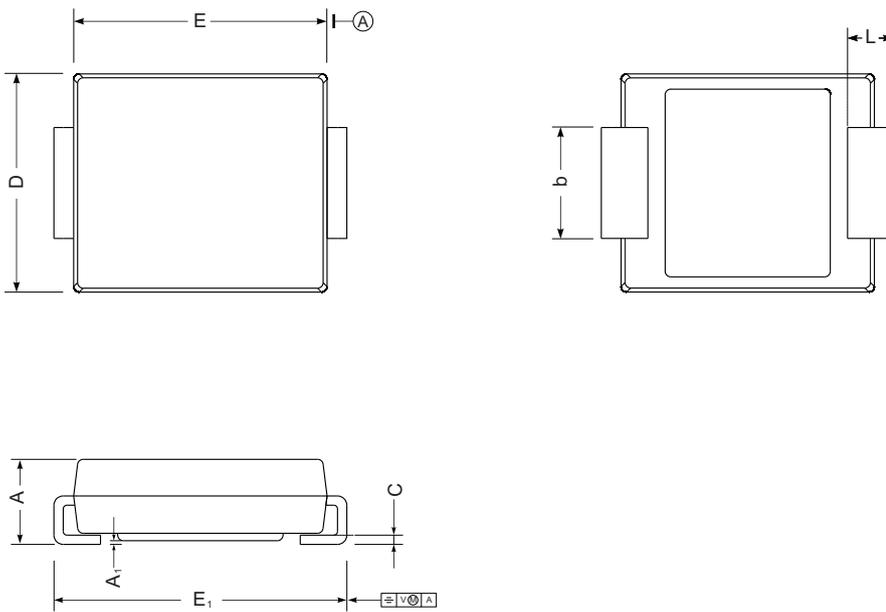


Fig.5 Mounting PAD Layout



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



SMC mechanical data

UNIT		A	E	D	$E_1$	$A_1$	C	L	b
mm	max	2.62	7.0	6.2	8.0	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	315	8.3	12	63	128
	min	79	256	220	299	2.0	5.9	35	108