

# SK52-B THRU SK510-B

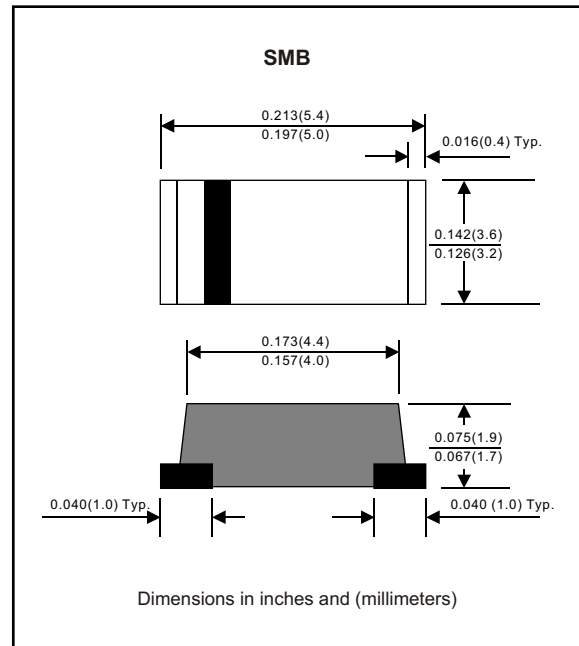
Silicon epitaxial planer type

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound.
- For surface mounted applications.
- Exceeds environmental standards of ML-S-19500 / 228
- Low leakage current

## Mechanical data

Case : Moulded plastic, JEDEC DO-214AA  
 Terminals : Solder plated, solderable per ML-STD-750, Method 2026  
 Polarity : Indicated by cathode band  
 Mounting Position : Any  
 Weight : 0.00878 ounce, 0.293 gram



## MAXIMUM RATINGS (AT $T_A=25^{\circ}C$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	$I_O$			5.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			150	A
Reverse current	$V_R = V_{RRM} T_A = 25^{\circ}C$	$I_R$			1	mA
	$V_R = V_{RRM} T_A = 125^{\circ}C$				50	mA
Thermal resistance	Junction to lead	$R_{JL}$		12		$^{\circ}C / w$
Diode junction capacitance	$f=1MHz$ and applied 4vDC reverse voltage	$C_J$		380		pF
Storage temperature		$T_{STG}$	-55		+150	$^{\circ}C$

SYMBOLS	MARKING CODE	$V_{RRM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature ( $^{\circ}C$ )
SK52-B	SS52	20	14	20	0.50	-55 to +125
SK53-B	SS53	30	21	30		
SK54-B	SS54	40	28	40		
SK55-B	SS55	50	35	50	0.70	-55 to +150
SK56-B	SS56	60	42	60		
SK58-B	SS58	80	56	80	0.85	
SK510-B	S510	100	70	100		

\*1 Repetitive peak reverse voltage  
 \*2 RMS voltage  
 \*3 Continuous reverse voltage  
 \*4 Maximum forward voltage

## RATING AND CHARACTERISTIC CURVES (SK52B THRU SK510B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

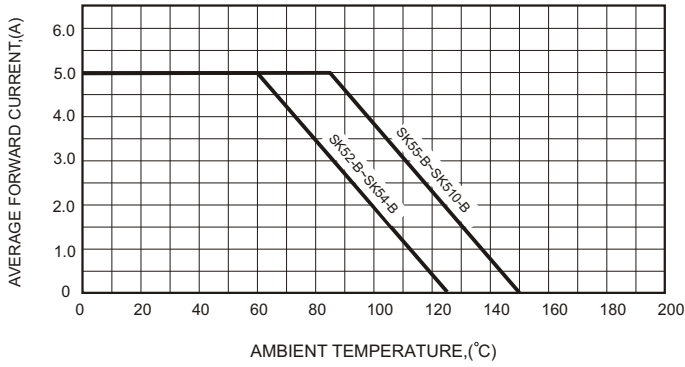


FIG.2-TYPICAL FORWARD CHARACTERISTICS

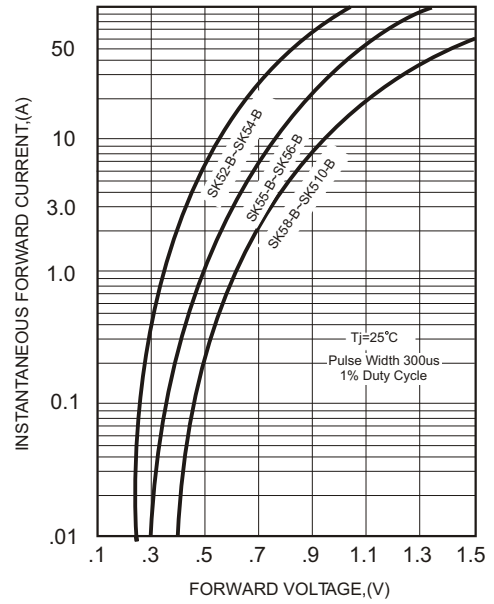


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

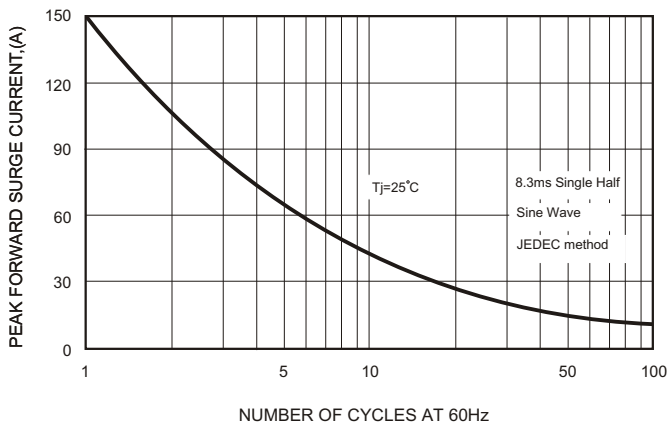


FIG.4-TYPICAL JUNCTION CAPACITANCE

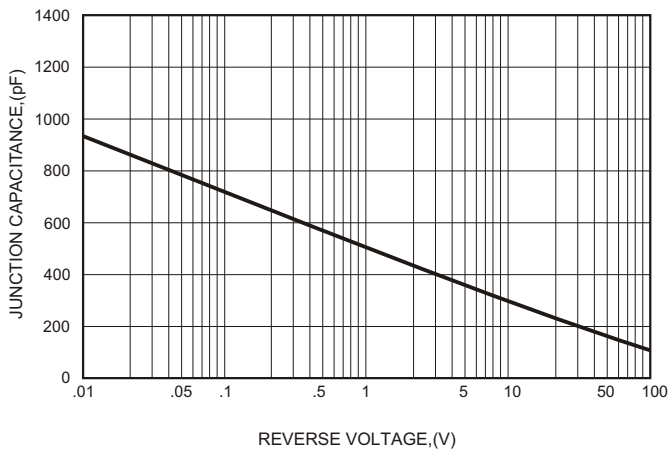


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

