

■ Features

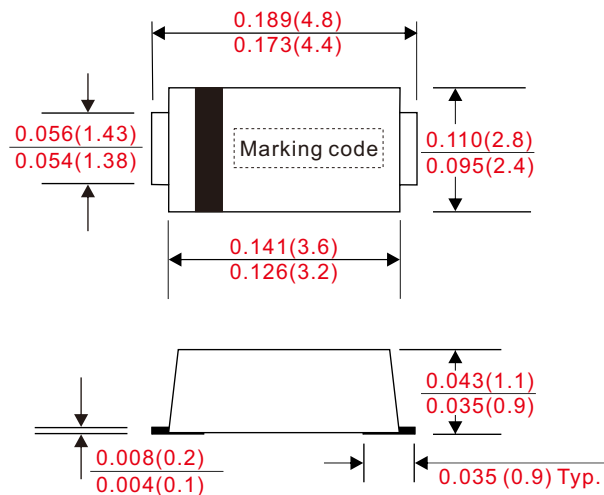
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead free in compliance with EU RoHS.

■ Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, SMAF
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.027 gram

■ Outline

SMAF



Dimensions in inches and (millimeters)

■ Maximum ratings and electrical characteristics

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

Parameter	Conditions			Symbol	MIN.	TYP.	MAX.	UNIT
Average Rectified Output Current @ 90°C				I _O			5.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)			I _{FSM}			100	A
Peak Reverse current @ 25°C	40V,60V		I _R				0.1	mA
	100V,150V,200V						0.05	
At Rated DC Blocking Voltage @ 100°C	40V,60V		I _R				10	mA
	100V,150V,200V						5	
Typical Junction capacitance				C _J		28		pF
Typical Thermal Resistance per leg				R _{θJL}		88		°C/W
Storage temperature				T _{STG}	-55		+150	°C
Symbol	Max. repetitive peak reverse voltage V _{RRM} (V)	Max. RMS voltage V _{RMS} (V)	Max. DC blocking voltage V _R (V)	Max. forward voltage @5A, T _A = 25°C V _F (V)		Operating temperature T _J (°C)		
SK54MAFG	40	28	40	0.55		-55 ~ +150		
SK56MAFG	60	42	60	0.70				
SK510MAFG	100	70	100	0.85				
SK515MAFG	150	105	150	0.92				
SK520MAFG	200	140	200					

■ Rating and characteristic curves

Fig. 1 Forward Current Derating Curve

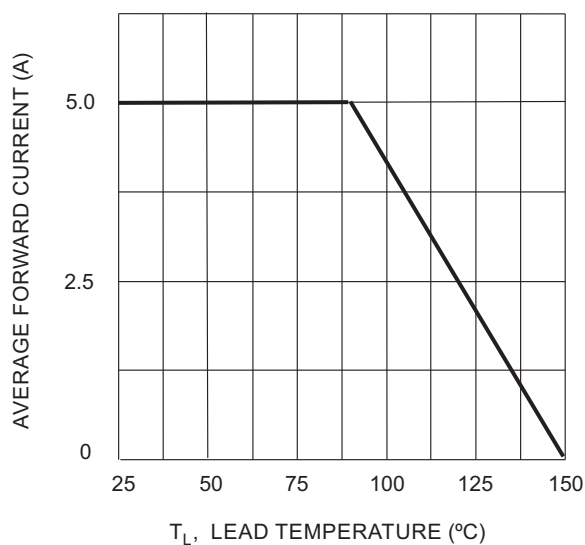


Fig. 2 Typ. Forward Characteristics

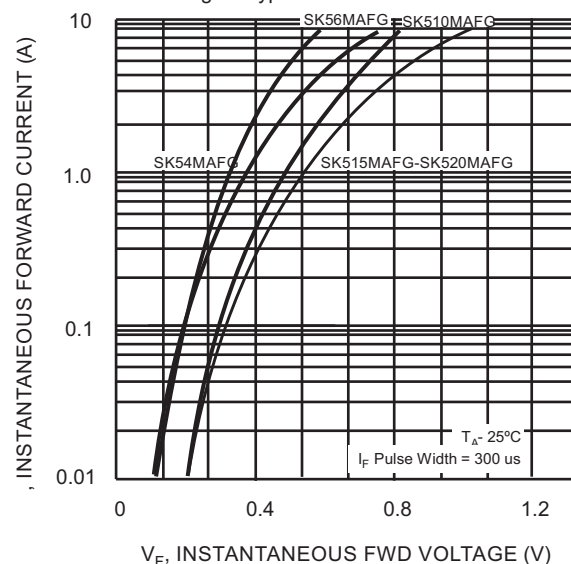


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

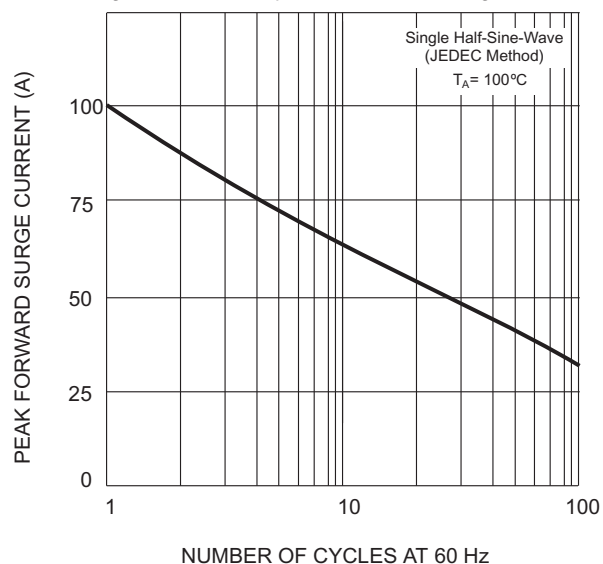
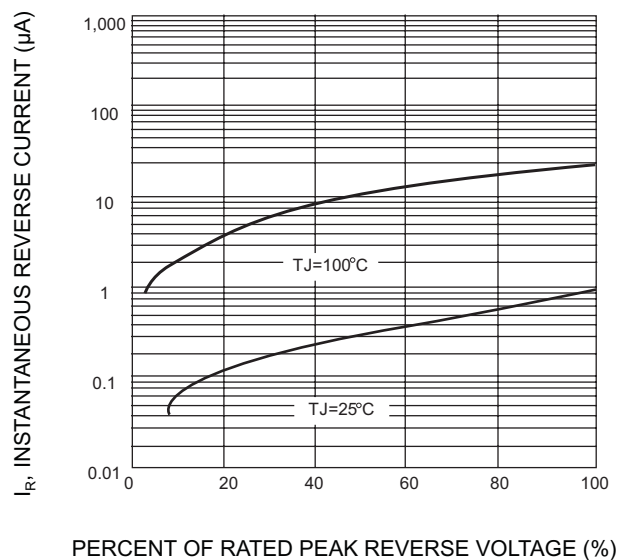
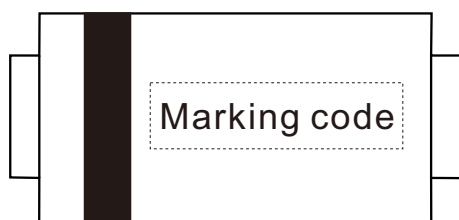


Fig. 4 Typical Reverse Characteristics (per element)



■ Marking Information



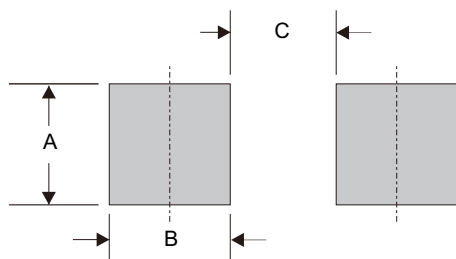
	Part number	Marking Code
Halogen free	SK54MAFG	S54
	SK56MAFG	S56
	SK510MAFG	S510
	SK515MAFG	S515
	SK520MAFG	S520

■ Ordering/Packing information

	Part number	Case	Q'TY/Reel (PCS)	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen free	SK54MAFG	SMAF	10,000	20,000	160,000

Notes : 1. For packaging details please reference our website at <http://www.citcorp.com.tw/tchinese/products/index.php>

■ SMAF foot print



A	B	C
0.059 (1.50)	0.063 (1.60)	0.098 (2.50)

Dimensions in inches and (millimeters)

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