

Pb Free Plating Product

## SK1045 thru SK10100



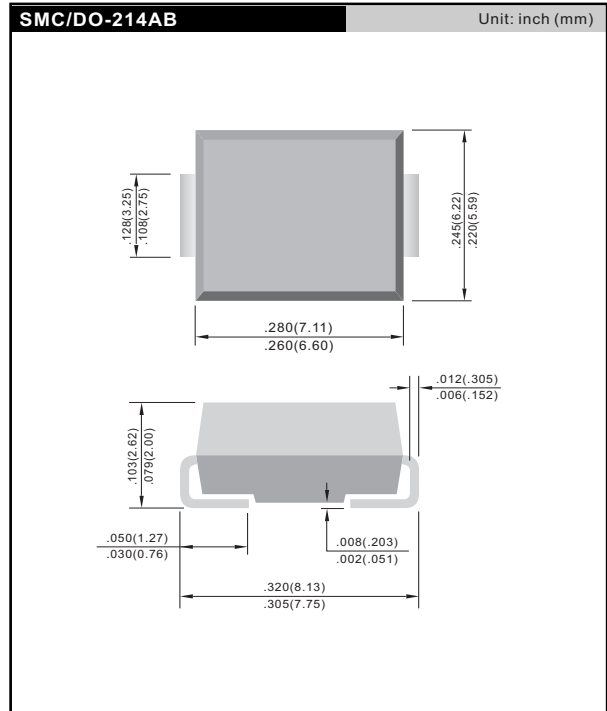
10 Ampere Surface Mount Type Schottky Barrier Rectifier Diodes

### Features

- ◇ For surface mounted application
- ◇ Metal to silicon rectifier, majority carrier conduction
- ◇ Low forward voltage drop
- ◇ Easy pick and place
- ◇ High surge current capability
- ◇ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ◇ Epitaxial construction
- ◇ High temperature soldering: 260°C / 10 seconds at terminals

### Mechanical Data

- ◇ Case: Molded plastic
- ◇ Terminals: Pure tin plated, lead free.
- ◇ Polarity: Indicated by cathode band
- ◇ Packaging: 16mm tape per EIA STD RS-481
- ◇ Weight: 0.235 gram approximately



## Maximum Ratings and Electrical Characteristics

Rating 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	SK1045	SK1065	SK10100	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	65	100	V
Maximum RMS voltage	$V_{RMS}$	32	46	70	V
Maximum DC blocking voltage	$V_{DC}$	45	65	100	V
Maximum average forward rectified current	$I_F$	10.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150.0			A
Maximum instantaneous $I_F=10A$ @ 25°C	$V_F$	0.55	0.70	0.85	V
Maximum DC reverse current @ TA=25°C at rated DC blocking voltage @ TA=100°C	$I_R$	0.5		0.2	mA
		25.0		15.0	
Typical junction capacitance(NOTE1)	$C_J$	380			pF
Typical thermal resistance	$R_{\theta JC}$	75			°CW
Operating temperature range	$T_J$	-50 to +125			°C
Storage temperature range	$T_{STG}$	-65 to +150			°C

NOTES: 1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

## RATINGS AND CHARACTERISTIC CURVES ( SK1045 THRU SK10100)

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

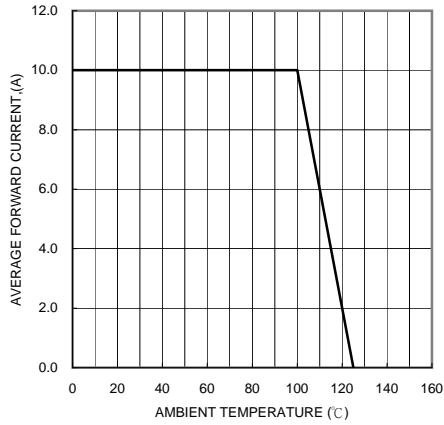


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

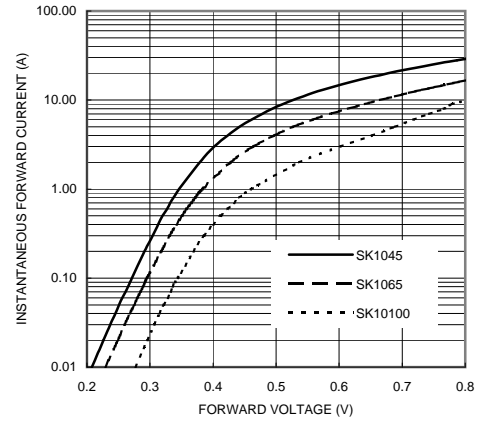


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

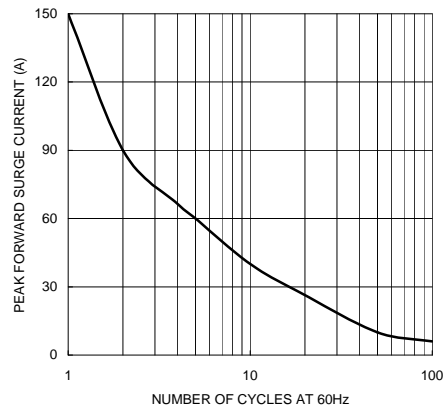


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

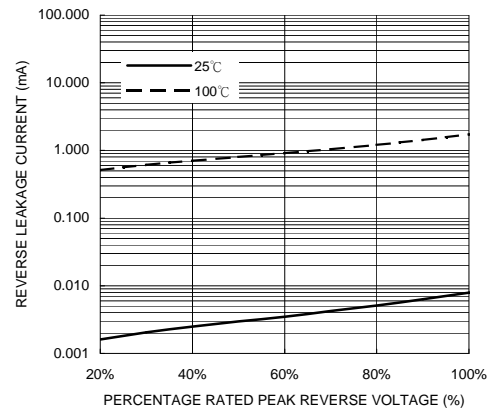


FIG. 5-TYPICAL JUNCTION CAPACITANCE

