

Standard Surface Mounted Rectifiers
Reverse Voltage - 1600V to 2000V
Forward Current - 1.5 A
FEATURES

- ◆The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆Idea for printed circuit board
- ◆Glass passivated Junction chip
- ◆Low reverse leakage
- ◆High forward surge current capability
- ◆High temperature soldering guaranteed 250 °C/10 seconds at terminals

MECHANICAL DATA

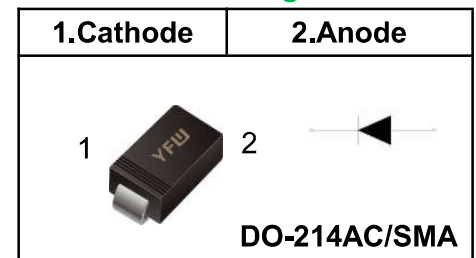
- ◆Case : Molded plastic body
- ◆Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- ◆Polarity : Polarity symbol marking on body
- ◆Mounting Position : Any
- ◆Weight : 0.0023 ounce, 0.07 grams

Maximum Ratings And Electrical Characteristics

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

Parameter	Symbols	SM513	SM516	SM520	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	1800	2000	V
Maximum RMS voltage	V_{RMS}	1120	1260	1400	V
Maximum DC Blocking Voltage	V_{DC}	1600	1800	2000	V
Maximum average forward rectified current at $T_L=100^{\circ}C$	$I_{F(AV)}$	1.5			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50.0			A
Maximum instantaneous forward voltage at 1.0A	V_F	1.10			V
Maximum DC reverse current at rated DC blocking voltage	I_R	TA = 25°C			mA
		TA = 125°C			
Typical junction capacitance (Note1)	C_J	18.0			°C/W
Typical thermal resistance	$R_{\theta JA}$	80.0			°C
Operating junction and storage temperature range	T_J, T_{stg}	-55 to +150			°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Pinning


Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

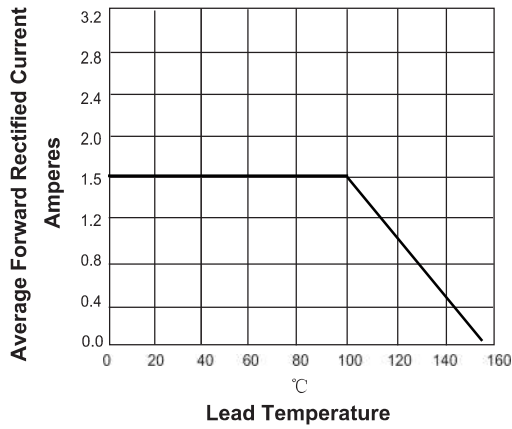


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

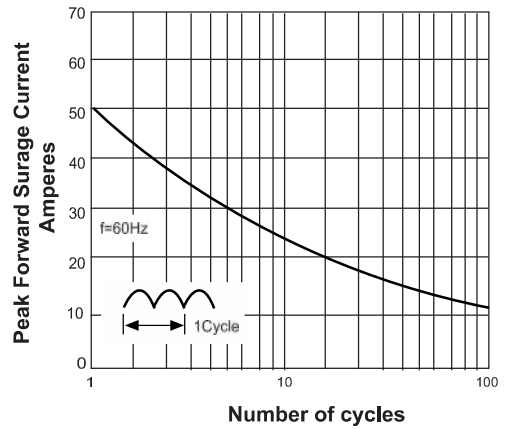


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

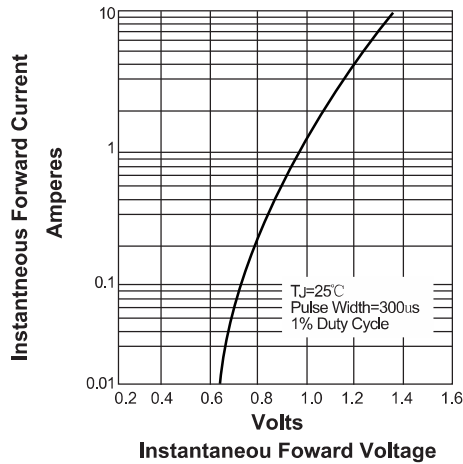
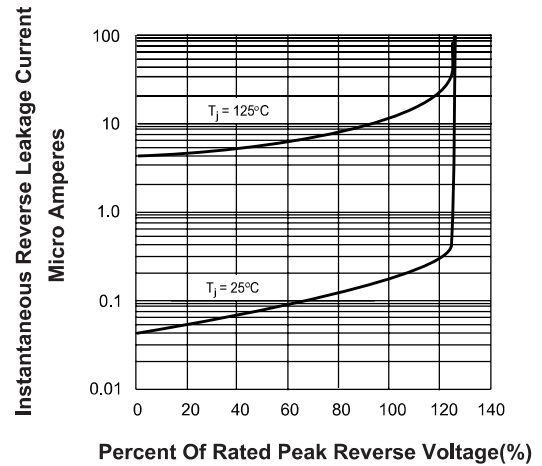


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

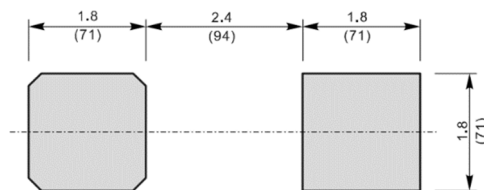
Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel, 13"reel	5000PCS/Reel 50000PCS/Carton

Package Dimensions

DO-214AC SMA

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.45	75	96
D	4.0	4.5	157	181
E	2.5	2.8	100	110
H _E	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.8	51	71
g	0.9	1.5	35	59
b	0.05	0.2	2	7.9
a	0.3		12	

The recommended mounting pad size



Unit : $\frac{\text{mm}}{\text{mil}}$

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