JYELECTRONICS®

SS12X THRU SS120X

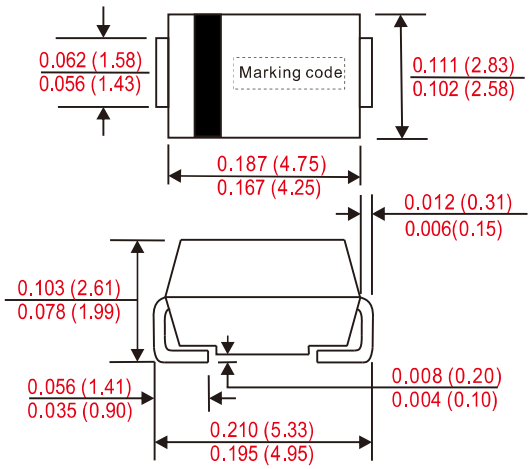
1A Surface Mount Schottky Barrier Rectifiers

■ 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 parts meet environmental standards of MIL-STD-19500 /228

■ Outline

SMA(DO-214AC)



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC / SMA
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.002 ounce, 0.055 gram

■ 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
Forward rectified current	See Fig.1	I_O			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			40	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25°C$	I_R			0.1	mA
	$V_R = V_{RRM}$ $T_A = 100°C$				20	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		120		pF
Thermal resistance	Junction to ambient	$R_{\theta JA}$		88		°C/W
Storage temperature		T_{STG}	-55		+175	°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 @1A, $T_A = 25°C$ V_F (V)	Operating temperature T_J (°C)
SS12X	20	14	20	0.45	-55 ~ +125
SS14X	40	28	40	0.55	
SS16X	60	42	60	0.70	
SS110X	100	70	100	0.81	
SS115X	150	105	150	0.87	-55 ~ +175
SS120X	200	140	200	0.90	

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

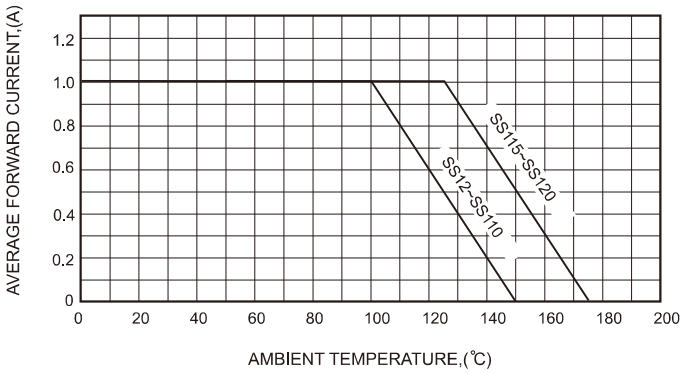


FIG.2-TYPICAL FORWARD CHARACTERISTICS

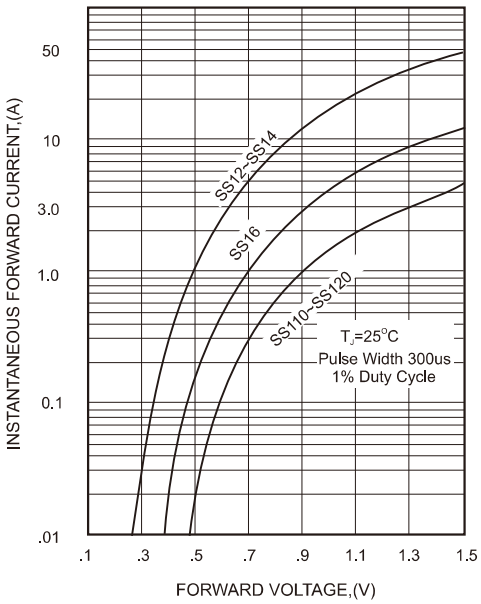


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

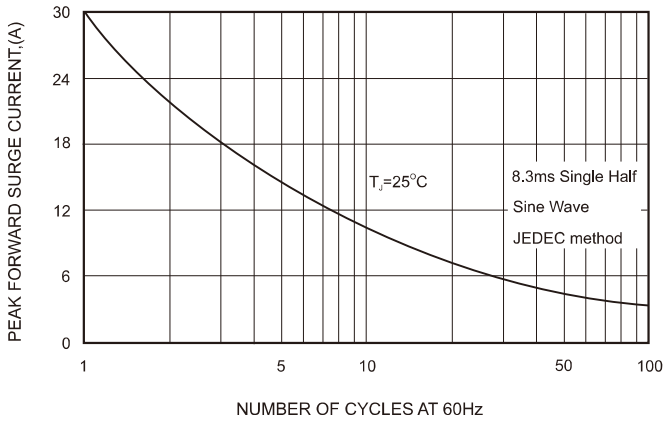


FIG.4-TYPICAL JUNCTION CAPACITANCE

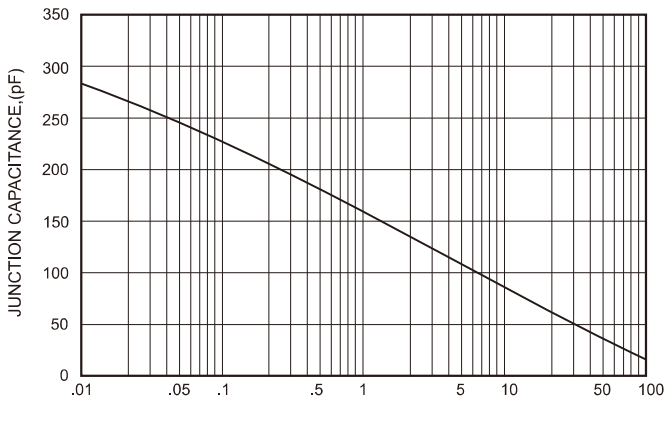
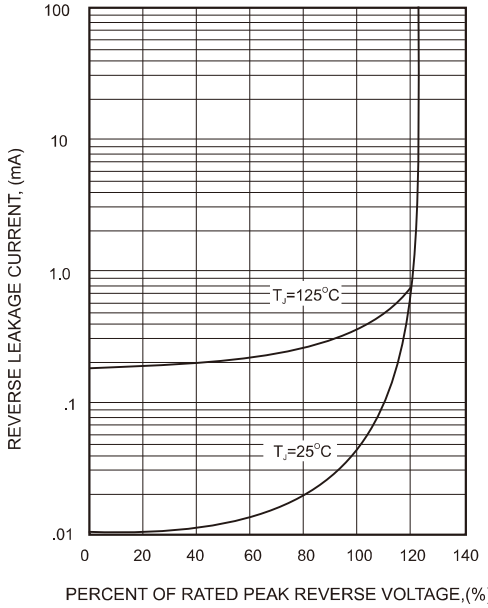
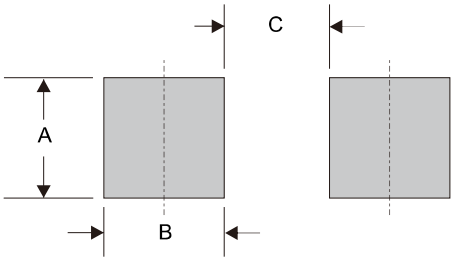


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



■ SMA foot print



A	B	C
0.068 (1.70)	0.104 (2.60)	0.060 (1.50)

Dimensions in inches and (millimeters)

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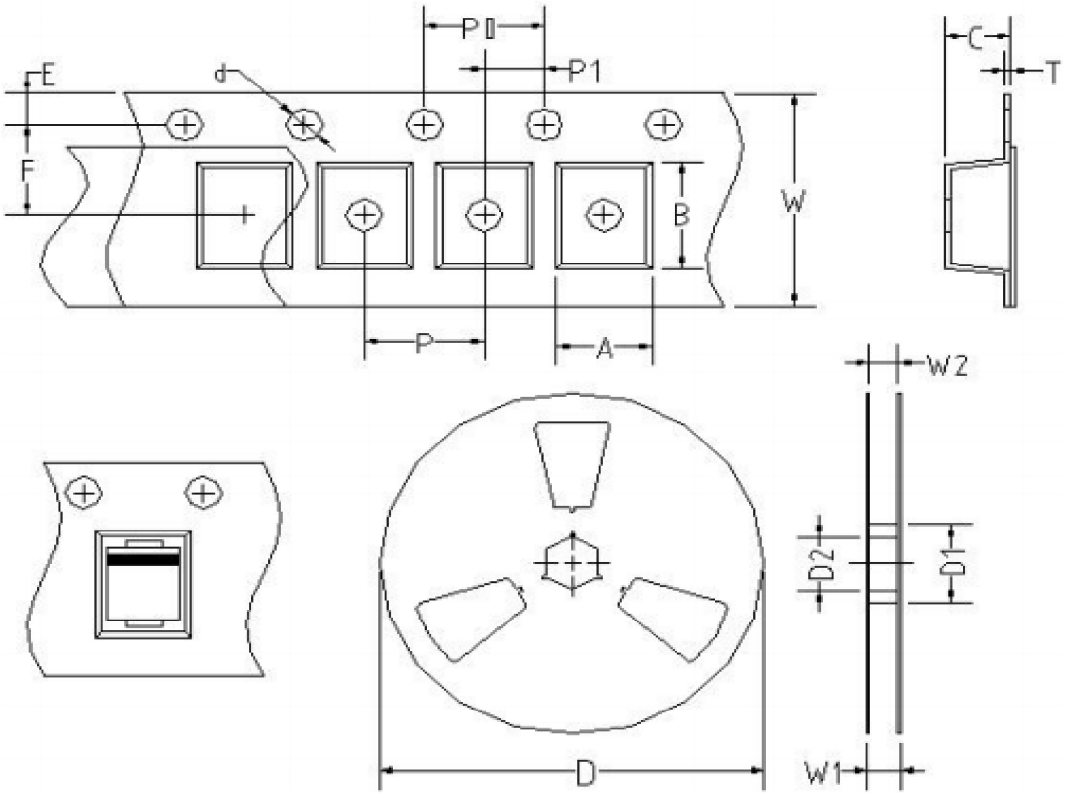
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REF	mm
A	2.79±0.15
B	5.33±0.15
C	2.36±0.15
d	1.55±0.10
D	330.0±1.0
D1	75±1.0
D2	13.5±1.0
E	1.75±0.10
F	5.50±0.05
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
T	0.30±0.10
W	12.00±0.15
W1	18.1±1.5
W2	13.5±1.0

OUTLINE	REEL (PCS)
TAPING	5,000