

SMAG Plastic-Encapsulate Diodes

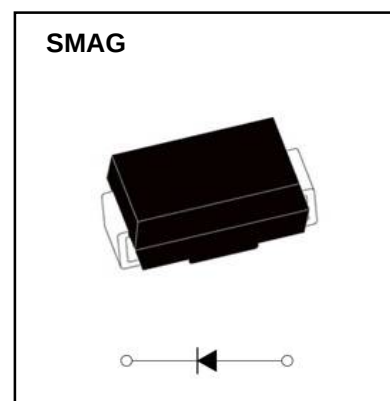
Schottky Rectifier

Features

- I_o 3A
- VRRM 20V-200V
- Low forward voltage drop
- High surge current capability
- Metal silicon junction, majority carrier conduction

Mechical Data

- Case: JEDEC DO-214AC molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208
- Polarity: Color band denotes cathode end



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SS 32	SS 33	SS 34	SS 35	SS 36	SS 38	SS 310	SS 315	SS 320
Repetitive Peak Reverse Voltage	V_{RRM}	V		20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V		14	21	28	35	42	56	70	105	140
Maximum DC Blocking Voltage	V_{DC}	V		20	30	40	50	60	80	100	150	200
Average Forward Current	$I_{F(AV)}$	A	60HZ Half-sine wave, Resistance load, TL(Fig.1)	3.0								
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave ,1 cycle , $T_a=25^{\circ}C$	70								
Junction Temperature	T_J	$^{\circ}C$		-55~+150								
Storage Temperature	T_{STG}	$^{\circ}C$		-55 ~ +150								

Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SS 32	SS 33	SS 34	SS 35	SS 36	SS 38	SS 310	SS 315	SS 320
Peak Forward Voltage	V _F	V	I _F =3.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	T _a =25℃	0.5					0.1			
	T _a =100℃			10					5.0				
Thermal Resistance(Typical)	R _{θJA}	℃/W	Between junction and ambient		70								
	Between junction and terminal		30										
	Between junction and case		25										
Juction Capacitance (Typical)	Cj	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		140			120		100		50	

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

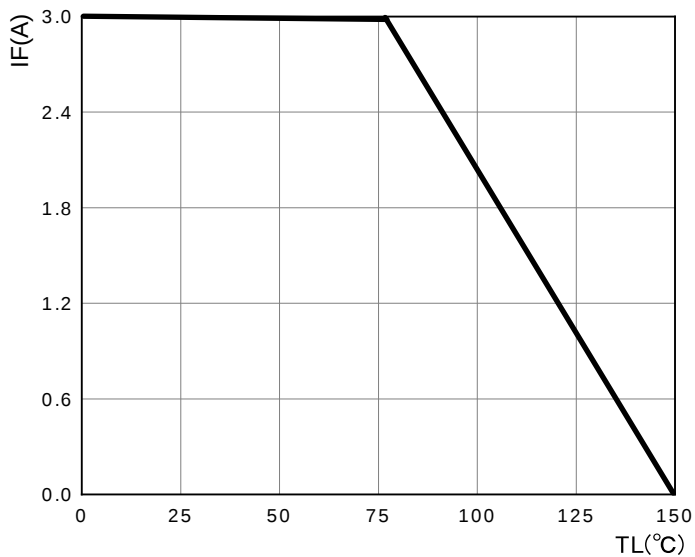
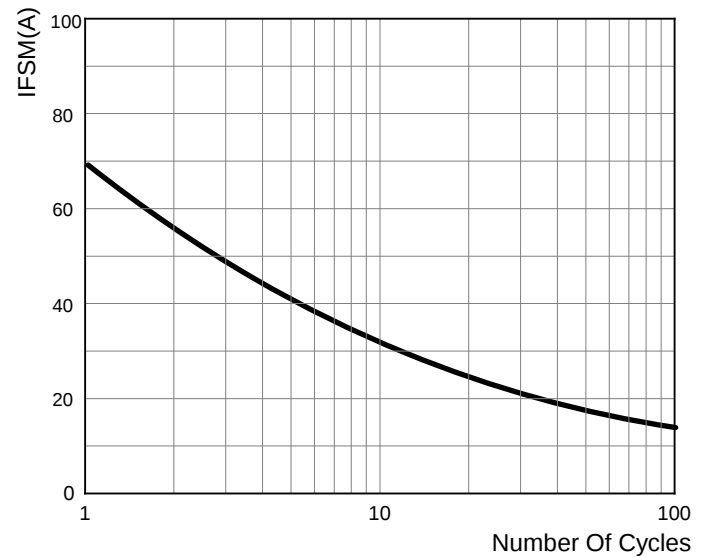
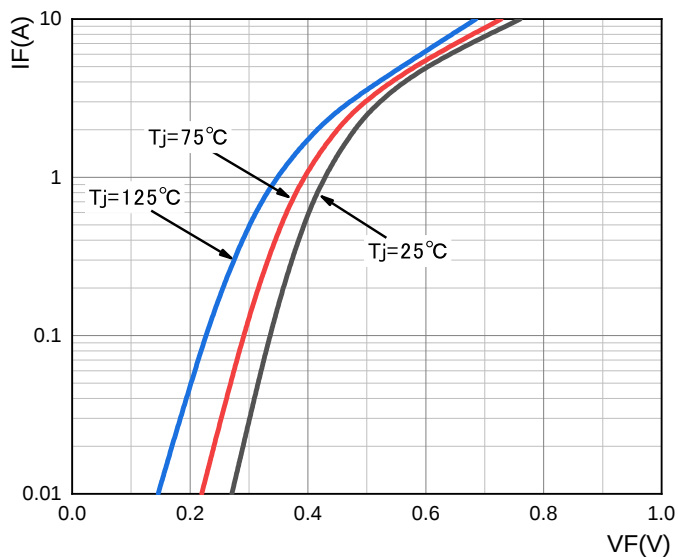


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



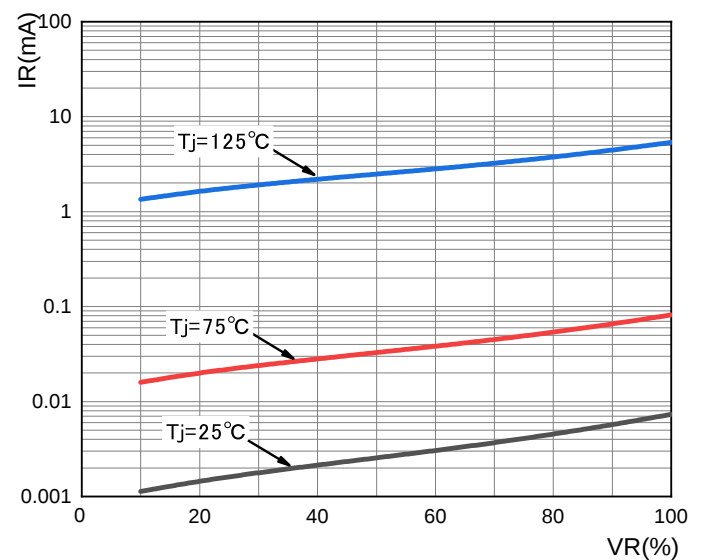
SS32-SS34

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SS32-SS34

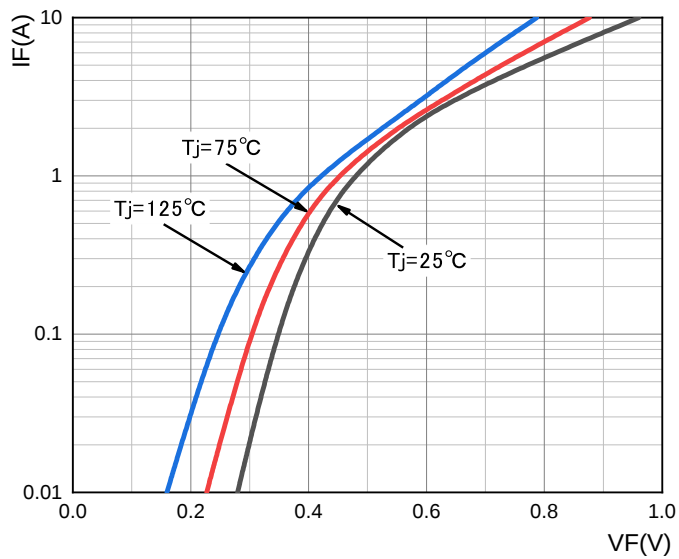
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

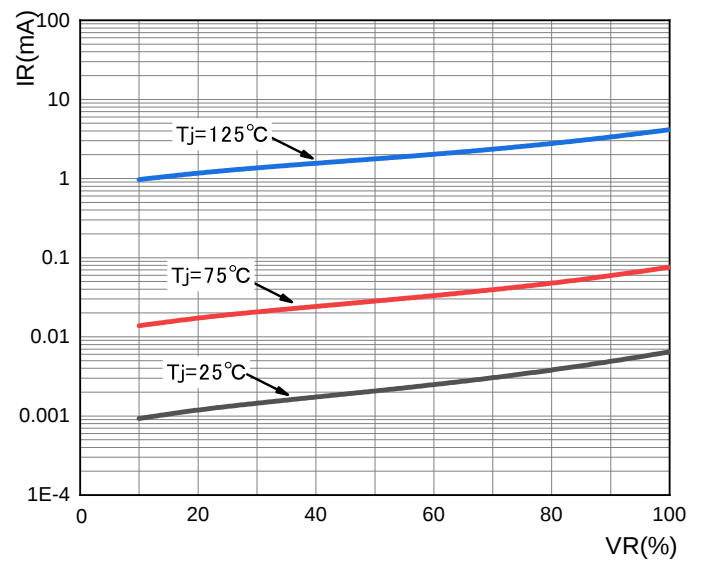
SS35-SS36

FIG.5: TYPICAL FORWARD CHARACTERISTICS



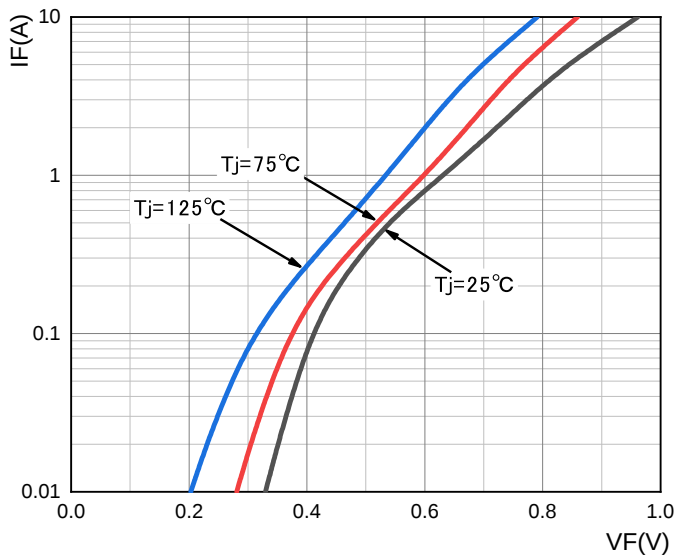
SS35-SS36

FIG.6: TYPICAL REVERSE CHARACTERISTICS



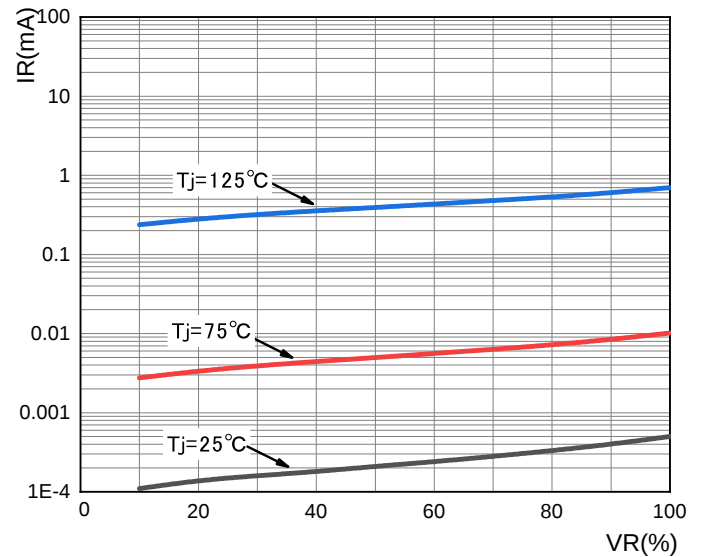
SS38-SS310

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SS38-SS310

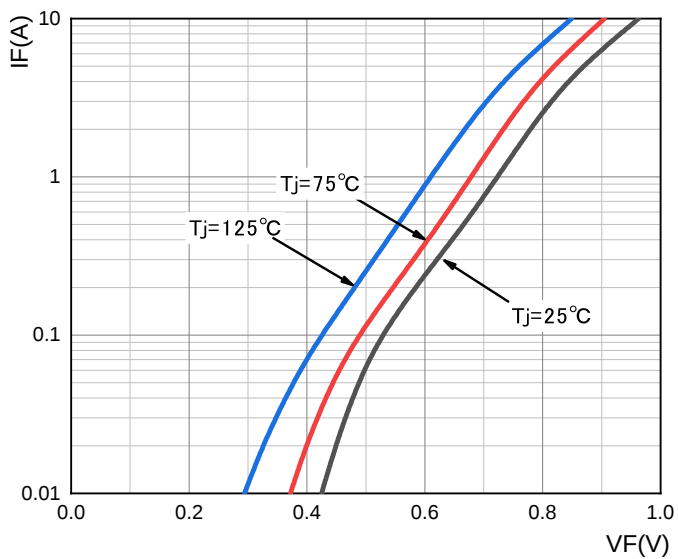
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

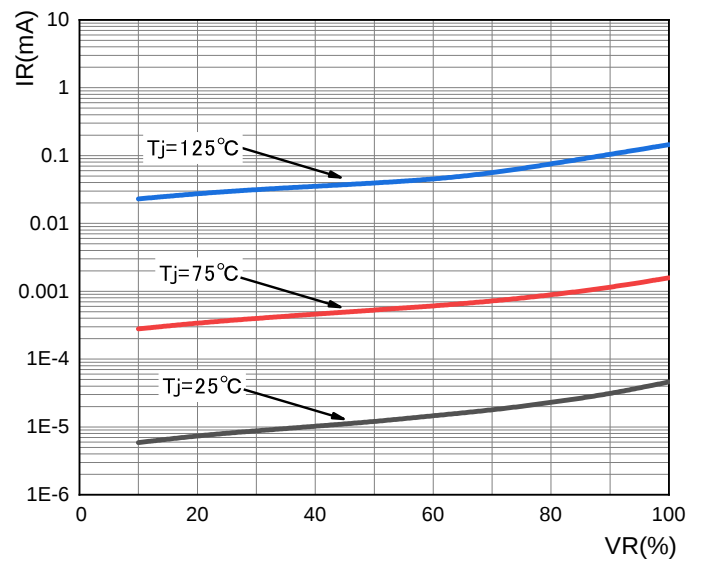
SS315

FIG.9: TYPICAL FORWARD CHARACTERISTICS



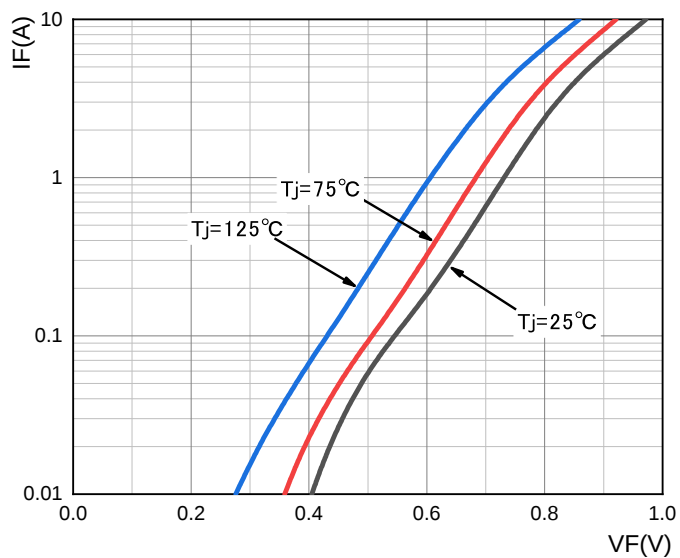
SS315

FIG.10: TYPICAL REVERSE CHARACTERISTICS



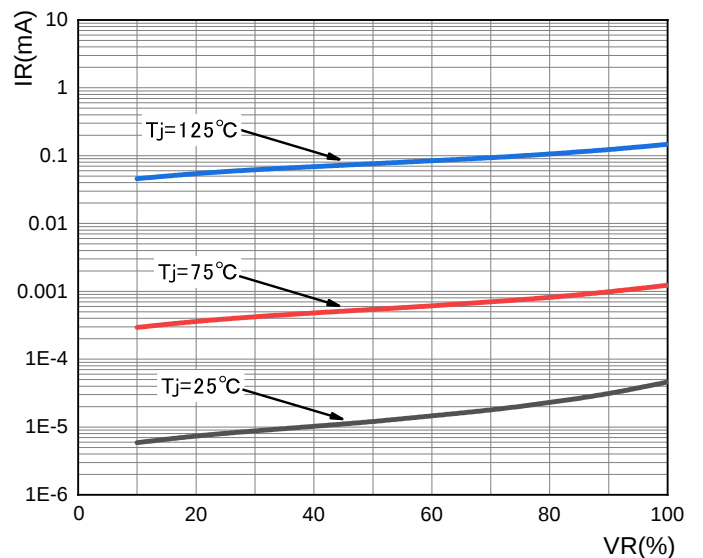
SS320

FIG.11: TYPICAL FORWARD CHARACTERISTICS

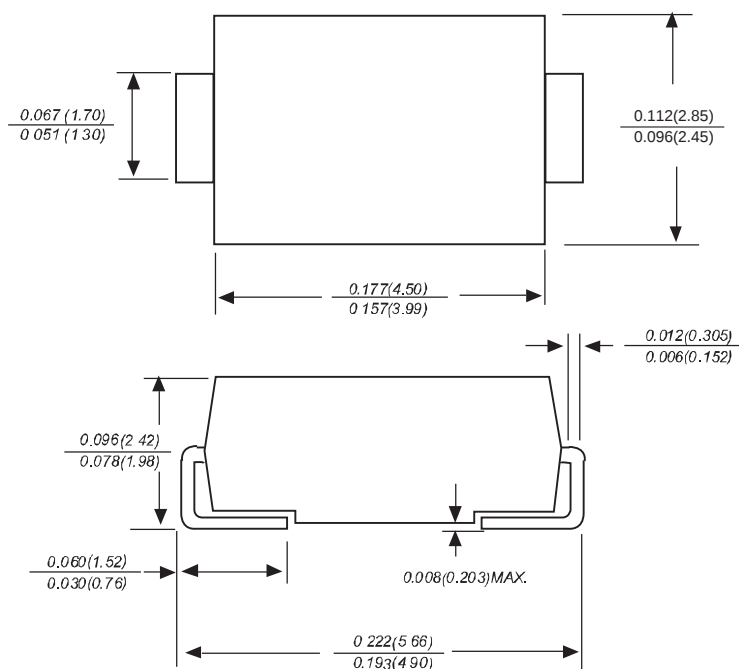


SS320

FIG.12: TYPICAL REVERSE CHARACTERISTICS

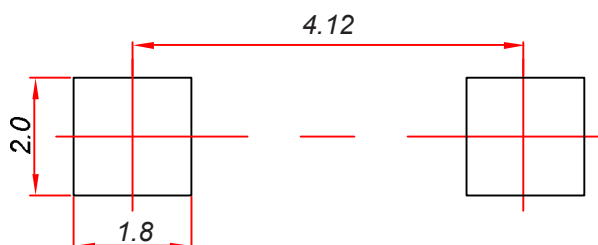


SMAG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAG Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05 \text{ mm}$.
3. The pad layout is for reference purposes only.

Ordering Information

Part Number	Package	Shipping Quantity
SS32-SS320	SMAG	5000/tape&Reel

Marking Diagram



X: From 2 To 20

Reel Taping Specifications For Surface Mount Devices- SMAG

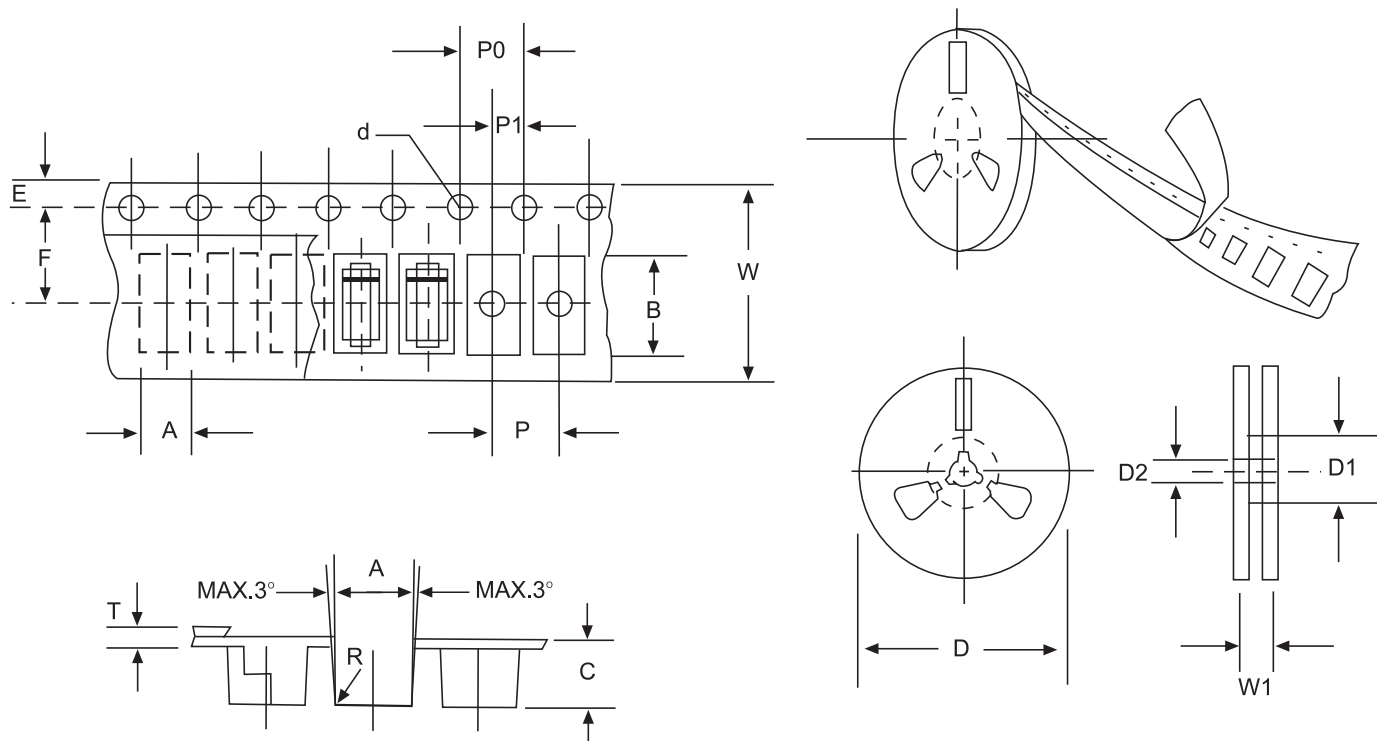


Fig:CONFIGURATION OF FLAT MELF TAPING

ITEM	SYMBOL	SMAG mm(inch)
Carrier width	A	2.79±0.1(0.110±0.004)
Carrier length	B	5.33±0.1(0.210±0.004)
Carrier depth	C	2.36±0.1(0.093±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	279±2.0 (11± 0.079)
Reel inner diameter	D1	75 ±1.0 (2.95 ±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Sprocket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	5.5±0.05(0.217±0.002)
Punch hole pitch	P	4.0±0.1(0.157±0.004)
Sprocket hole pitch	P0	4.0±0.1(0.157±0.004)
Embossment center	P1	2.0±0.1(0.079±0.004)
Total tape thickness	T	0.28±0.02(0.011 ±0.0008)
Tape width	W	12.0±0.2(0.472±0.008)
Reel width	W1	16.8±2.0(0.661±0.079)

NOTE: Devices are packed in accordance with EIA standard RS-481-A and specification given above.