

SMCG Plastic-Encapsulate Diodes

SK52 THRU SK520 Schottky Rectifier Diodes

Features

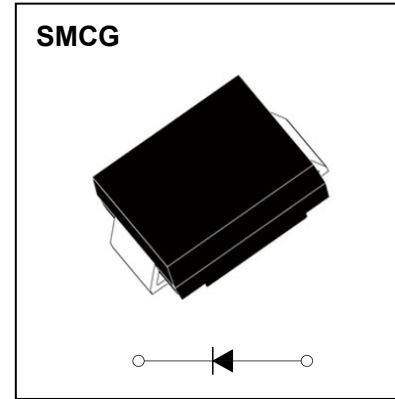
- $I_{F(AV)}$ 5A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- SK5X
- X : From 2 To 20



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SK5								
				2	3	4	5	6	8	10	15	20
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
Average Forward Current	I _{F(AV)}	A	60Hz Half-sine wave , Resistance load	5.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave , 1 cycle , Ta =25℃	150								
Junction Temperature	T _J	℃		-50~+150								
Storage Temperature	T _{STG}	℃		-50 ~ +150								

Electrical Characteristics (T=25°C Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SK5								
					2	3	4	5	6	8	10	15	20
Peak Forward Voltage	V _F	V	I _F =5.0A		0.55			0.7		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				0.5					
Thermal Resistance(Typical)	R _{θJ-A}	℃/W	Between junction and ambient		96								
	Between junction and terminal		9										
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		260			220		130		100	80

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on 1" x 1"(25.4mm x 25.4mm) FR4 PCB, double sided copper, with minimum pad layout

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

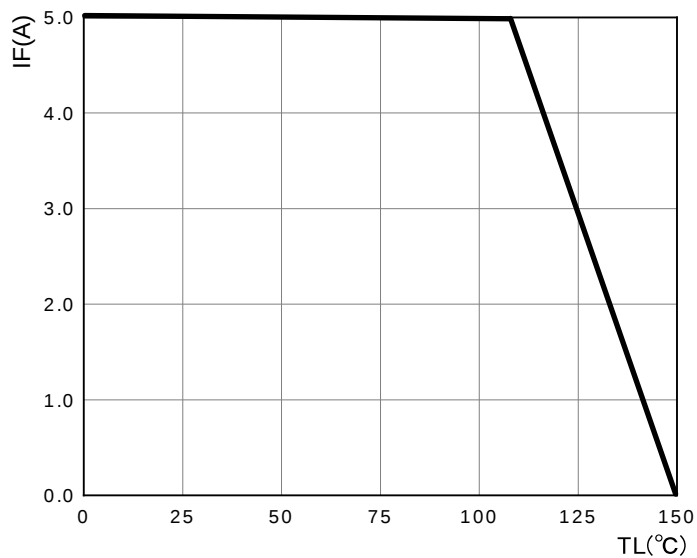
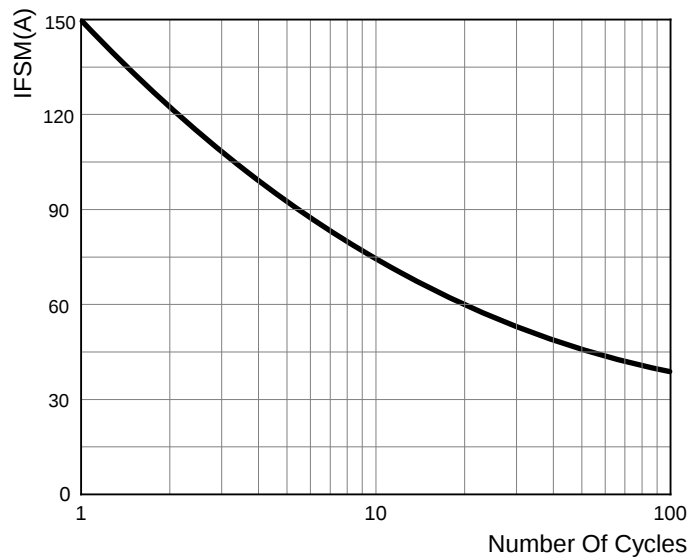
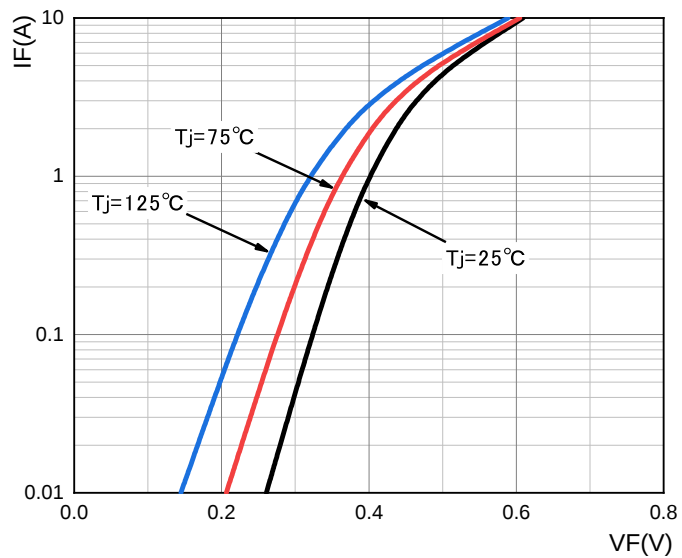


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



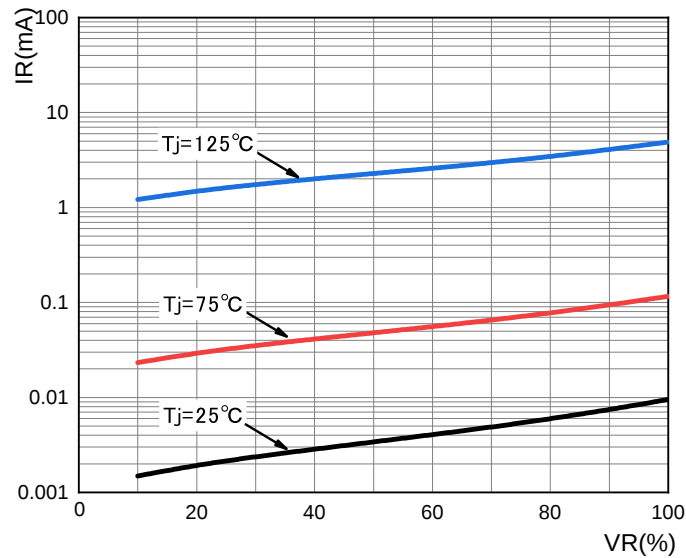
SK52-SK54

FIG.3: TYPICAL FORWARD CHARACTERISTICS



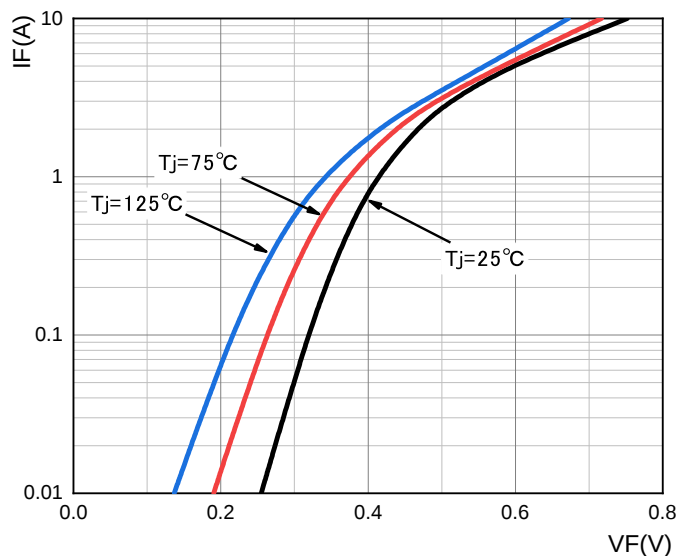
SK52-SK54

FIG.4: TYPICAL REVERSE CHARACTERISTICS



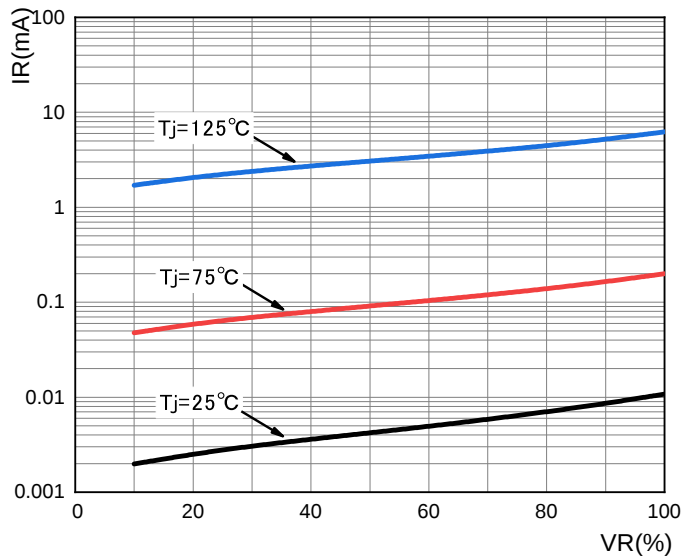
SK55-SK56

FIG.5: TYPICAL FORWARD CHARACTERISTICS



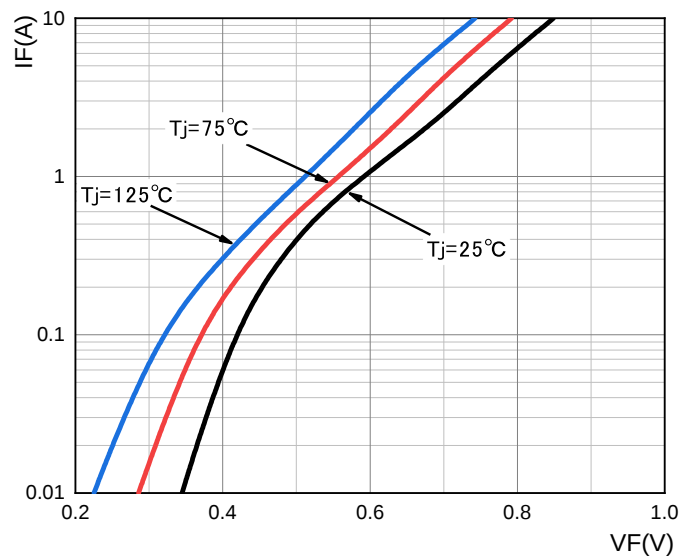
SK55-SK56

FIG.6: TYPICAL REVERSE CHARACTERISTICS



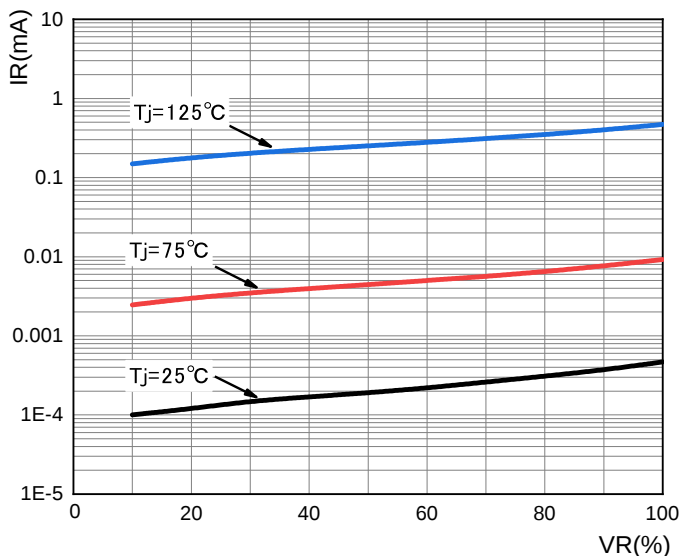
SK58-SK510

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SK58-SK510

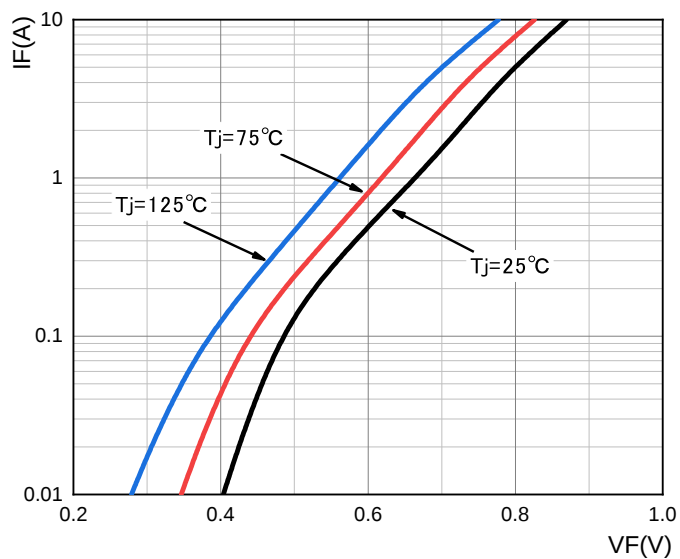
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

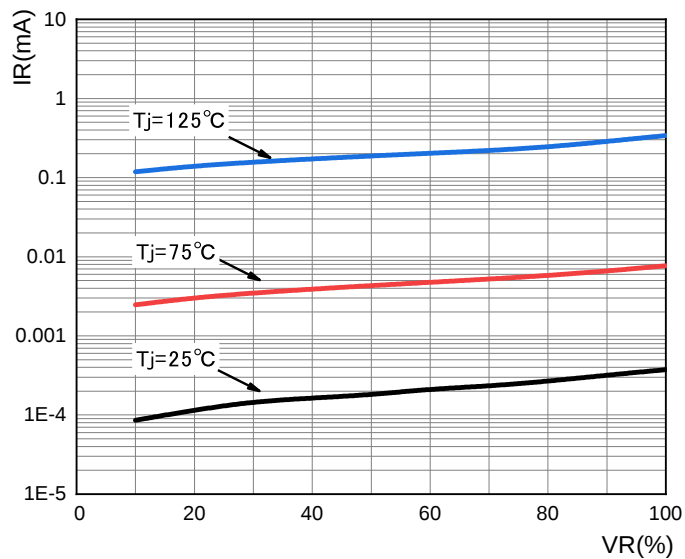
SK515

FIG.9: TYPICAL FORWARD CHARACTERISTICS



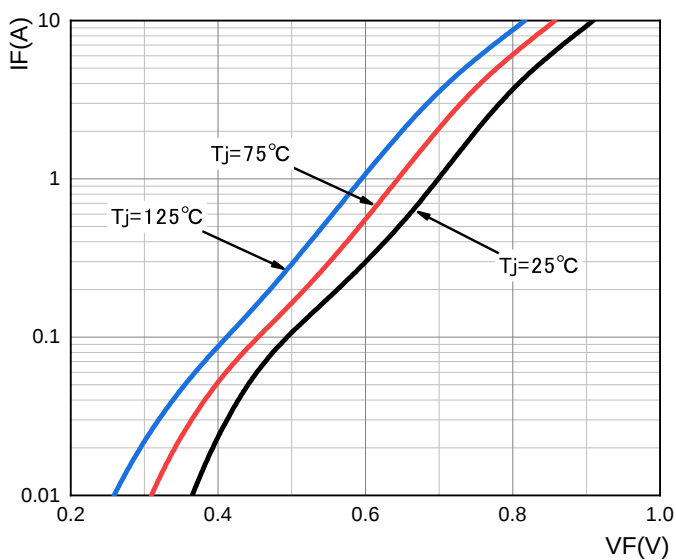
SK515

FIG.10: TYPICAL REVERSE CHARACTERISTICS



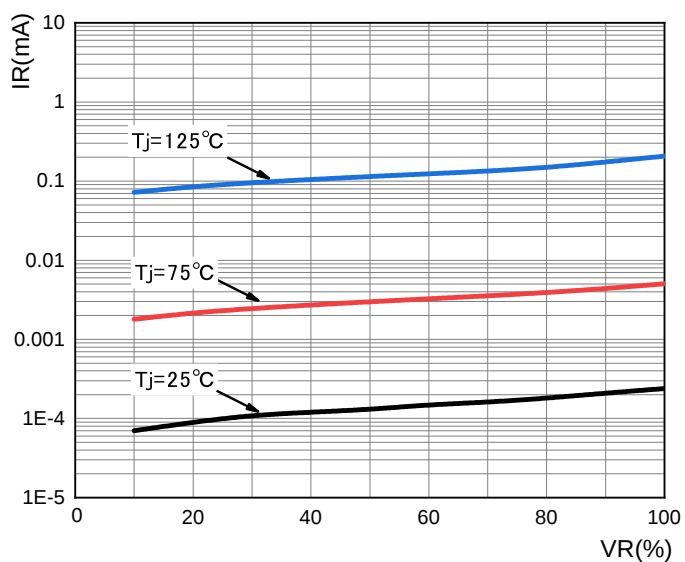
SK520

FIG.11: TYPICAL FORWARD CHARACTERISTICS

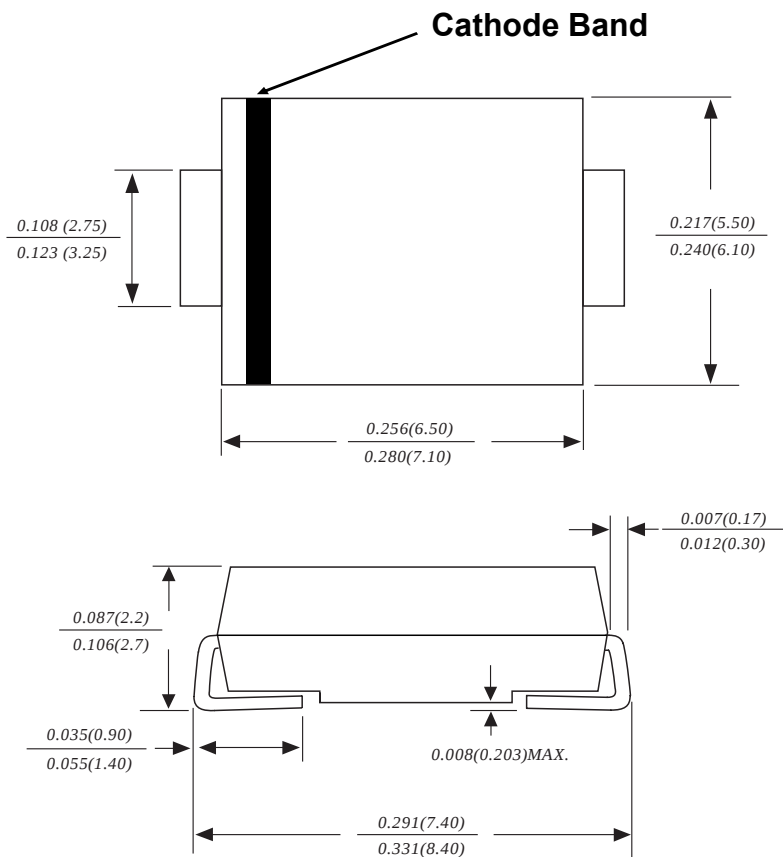


SK520

FIG.12: TYPICAL REVERSE CHARACTERISTICS

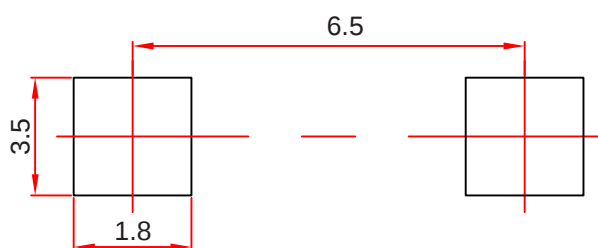


SMCG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMCG Suggested Pad Layout



Note:

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

NOTICE

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Reel Taping Specifications For Surface Mount Devices–SMCG

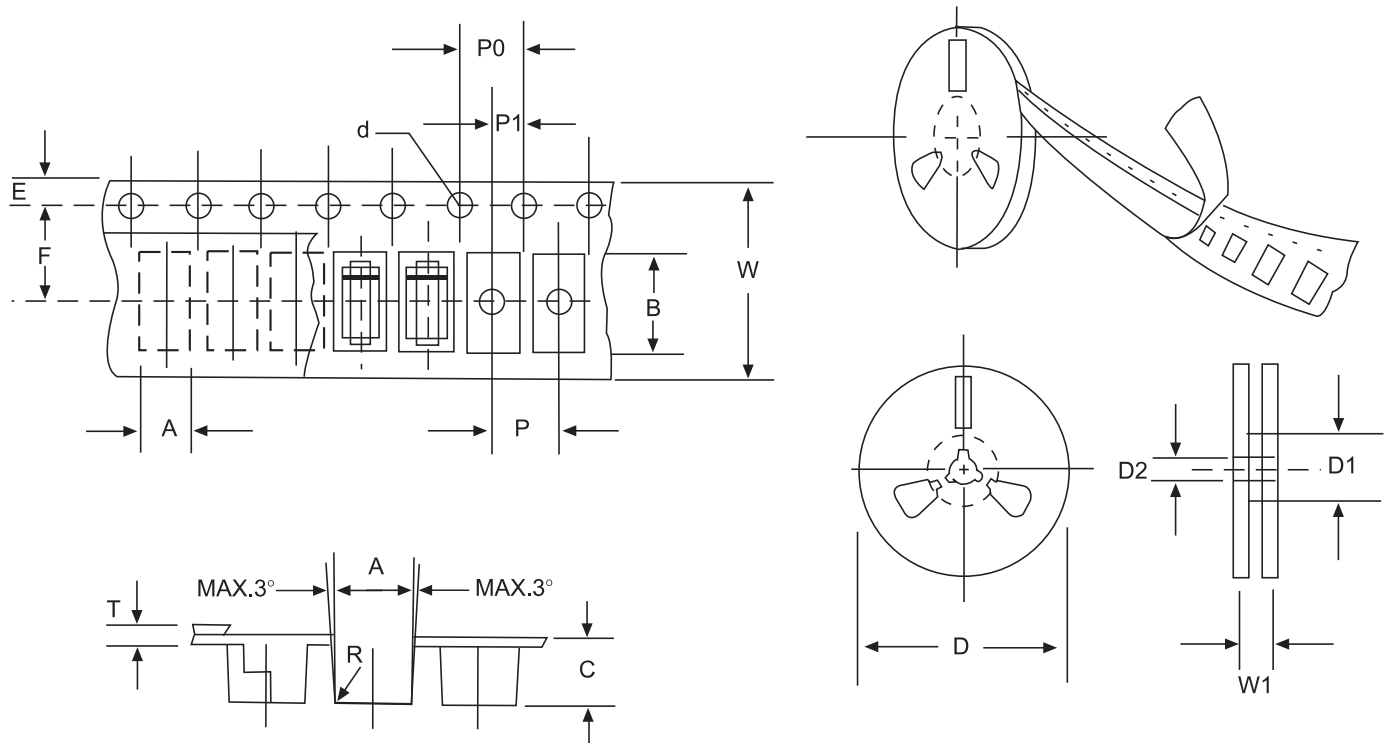


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMCG mm(inch)
Carrier width	A	6.05±0.1(0.238±0.004)
Carrier length	B	8.31±0.1(0.327±0.004)
Carrier depth	C	2.70±0.1(0.106±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	330±2.0(13±0.079)
Reel inner diameter	D1	75 ±1.0 (2.95 ±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Strocket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	7.65±0.05(0.301±0.002)
Punch hole pitch	P	8.0±0.1(0.315±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)
Totall tape thickness	T	0.3±0.1 (0.012±0.004)
Tape width	W	16.0±0.2(0.630±0.008)
Reel width	W1	24.0±2.0(0.945±0.079)

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