SZCJ

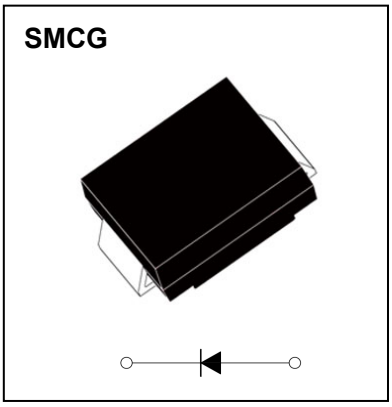
Shenzhen Changji Semiconductor Co., LTD.

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℃ 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	$V_{RM}=V_{RRM}$	Ta =25℃	0.5					0.1			
	I_{RRM2}			Ta =100℃	10					0.5			
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		96								
	$R_{\theta J-L}$		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

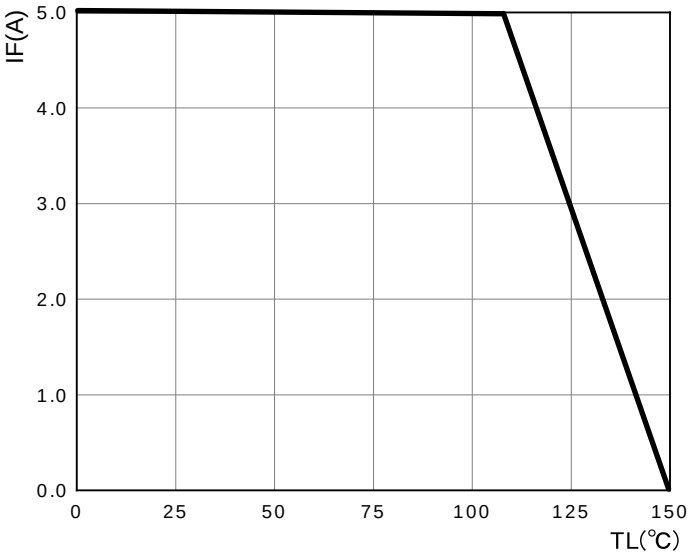
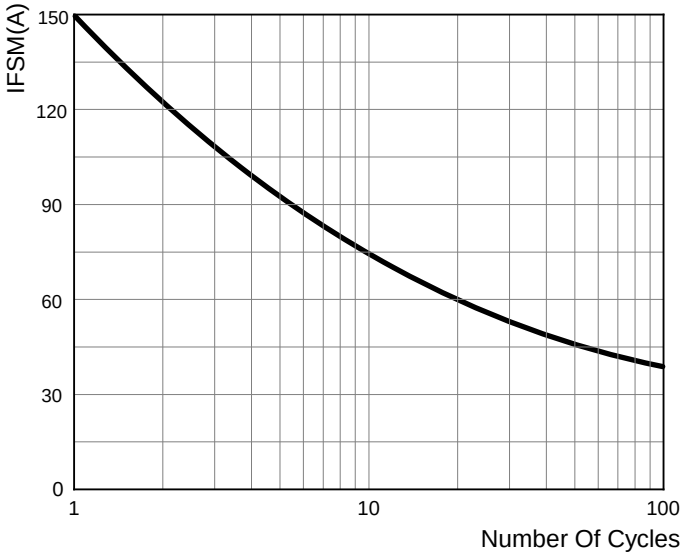
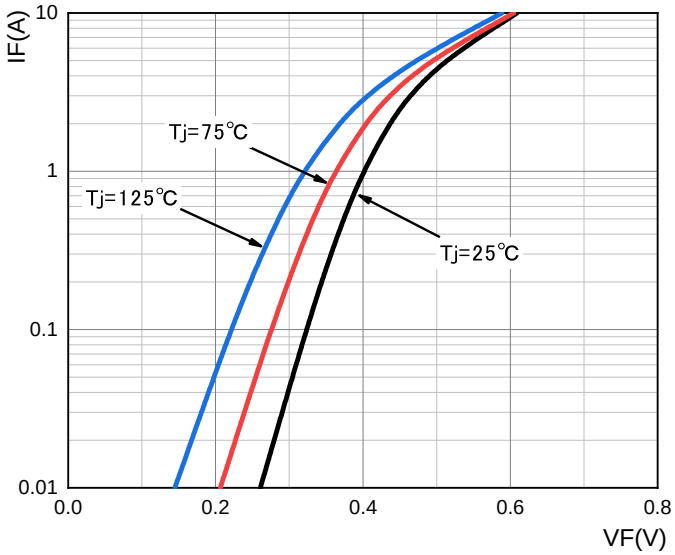


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



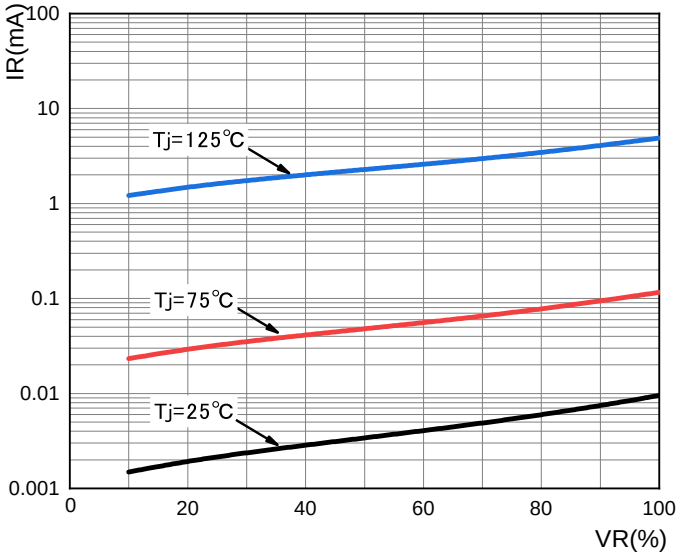
SK52-SK54

FIG.3: TYPICAL FORWARD CHARACTERISTICS



SK52-SK54

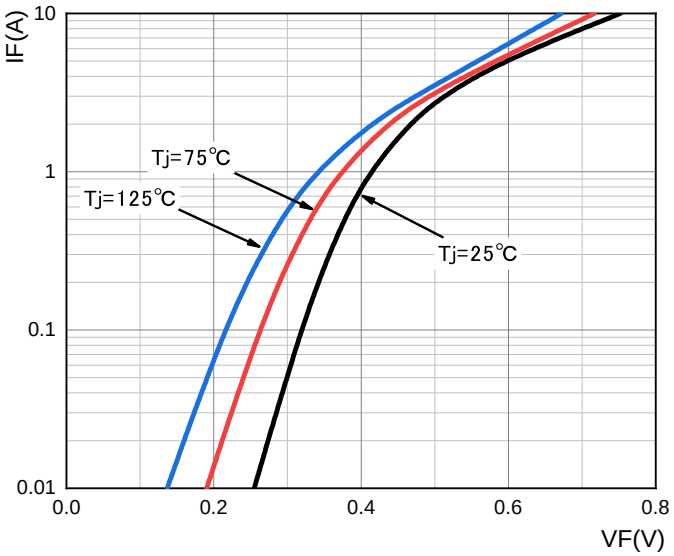
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

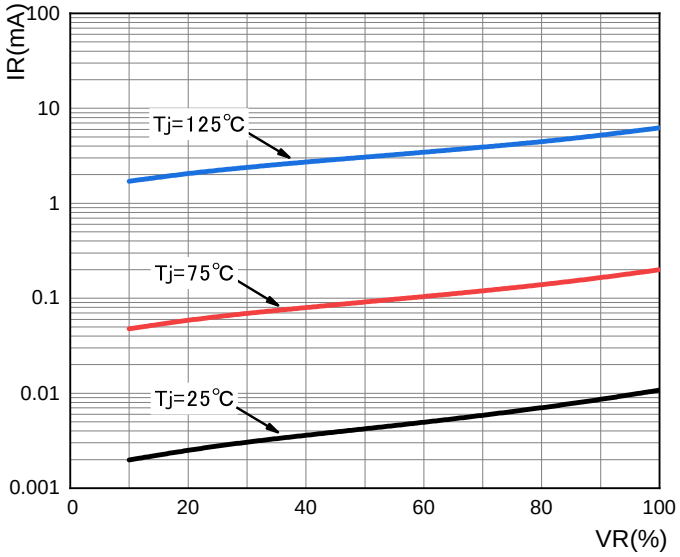
SK55-SK56

FIG.5: TYPICAL FORWARD CHARACTERISTICS



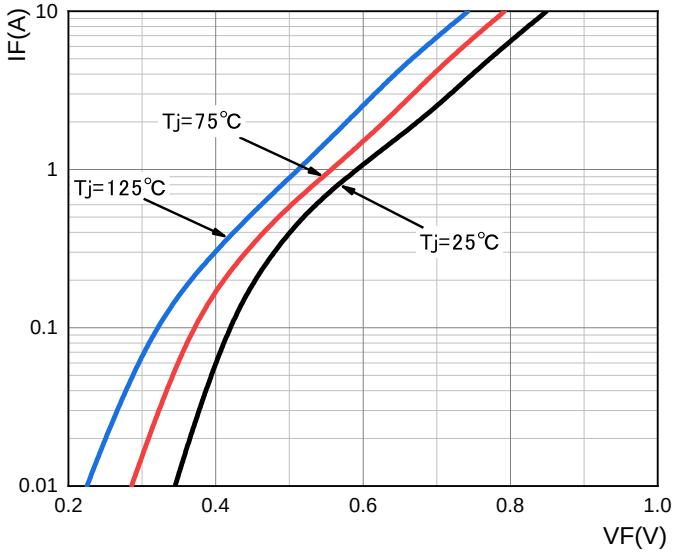
SK55-SK56

FIG.6: TYPICAL REVERSE CHARACTERISTICS



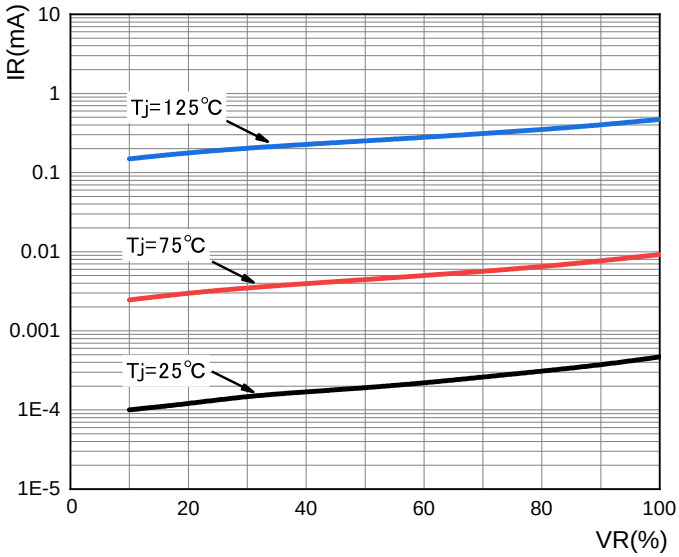
SK58-SK510

FIG.7: TYPICAL FORWARD CHARACTERISTICS



SK58-SK510

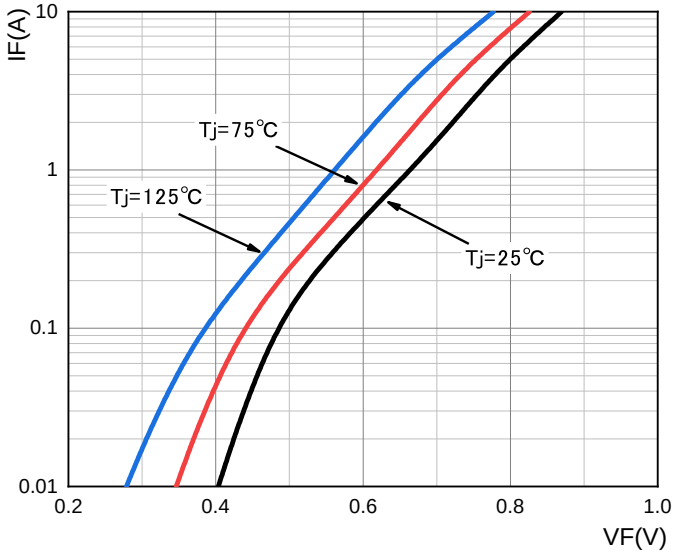
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

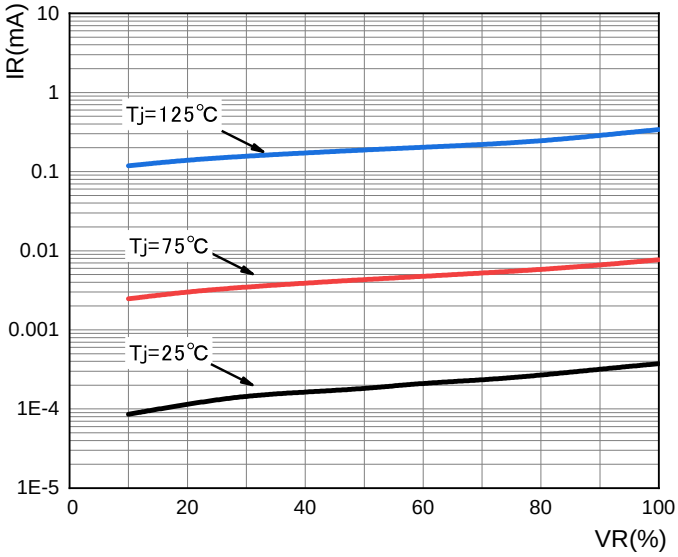
SK515

FIG.9: TYPICAL FORWARD CHARACTERISTICS



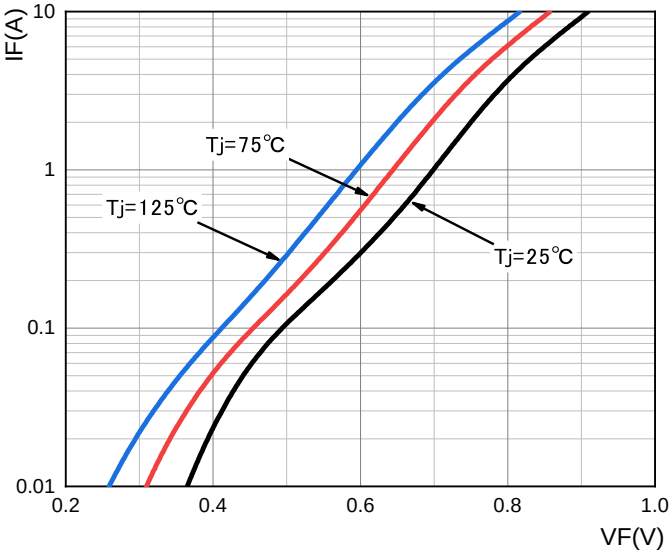
SK515

FIG.10: TYPICAL REVERSE CHARACTERISTICS



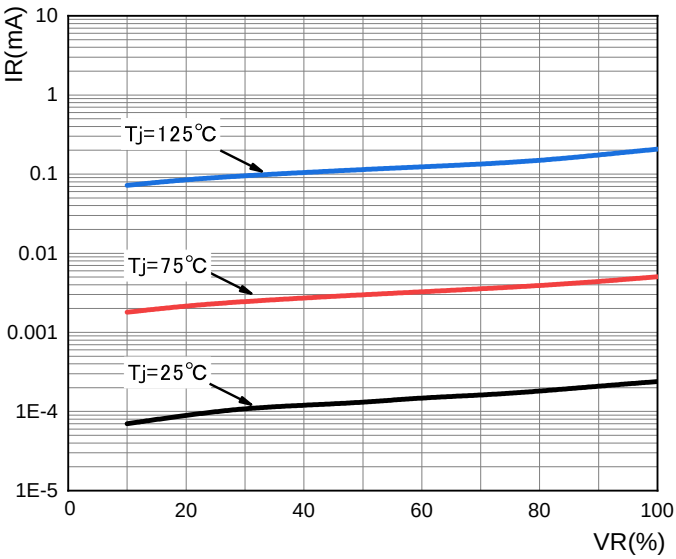
SK520

FIG.11: TYPICAL FORWARD CHARACTERISTICS

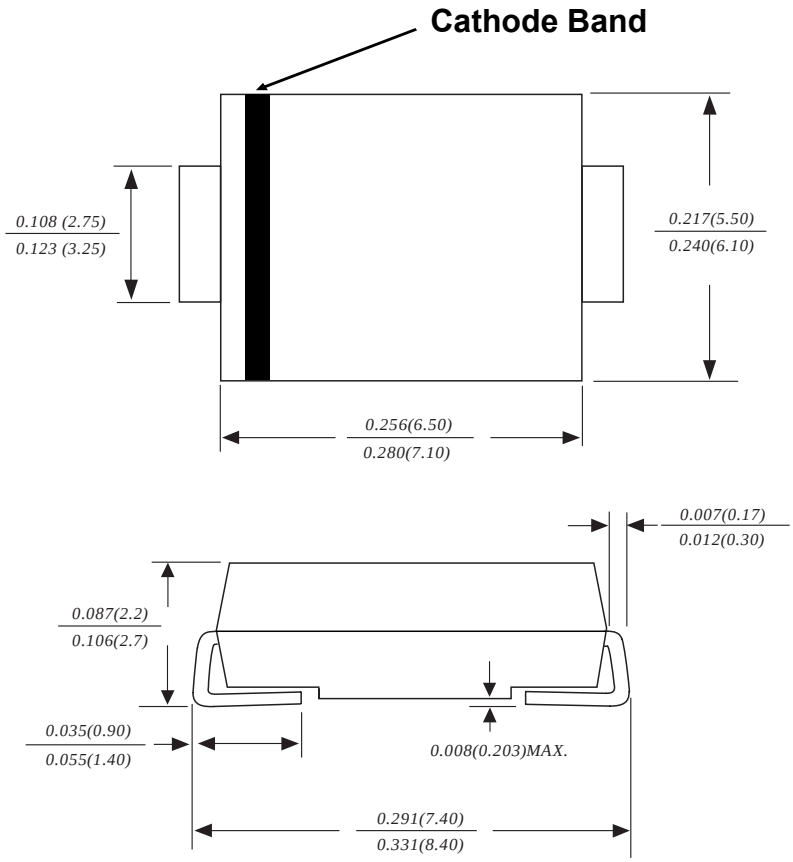


SK520

FIG.12: TYPICAL REVERSE CHARACTERISTICS

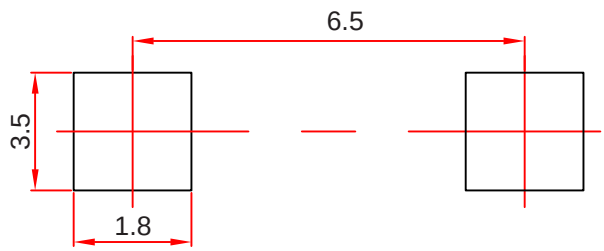


SMCG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMCG Suggested Pad Layout



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

NOTICE

SZCJ reserves the right to make modifications,enha nts,improvements,corrections or other es without further notice to any product herein.SZCJ does not assume any liability arising out of the application or use of any product described .

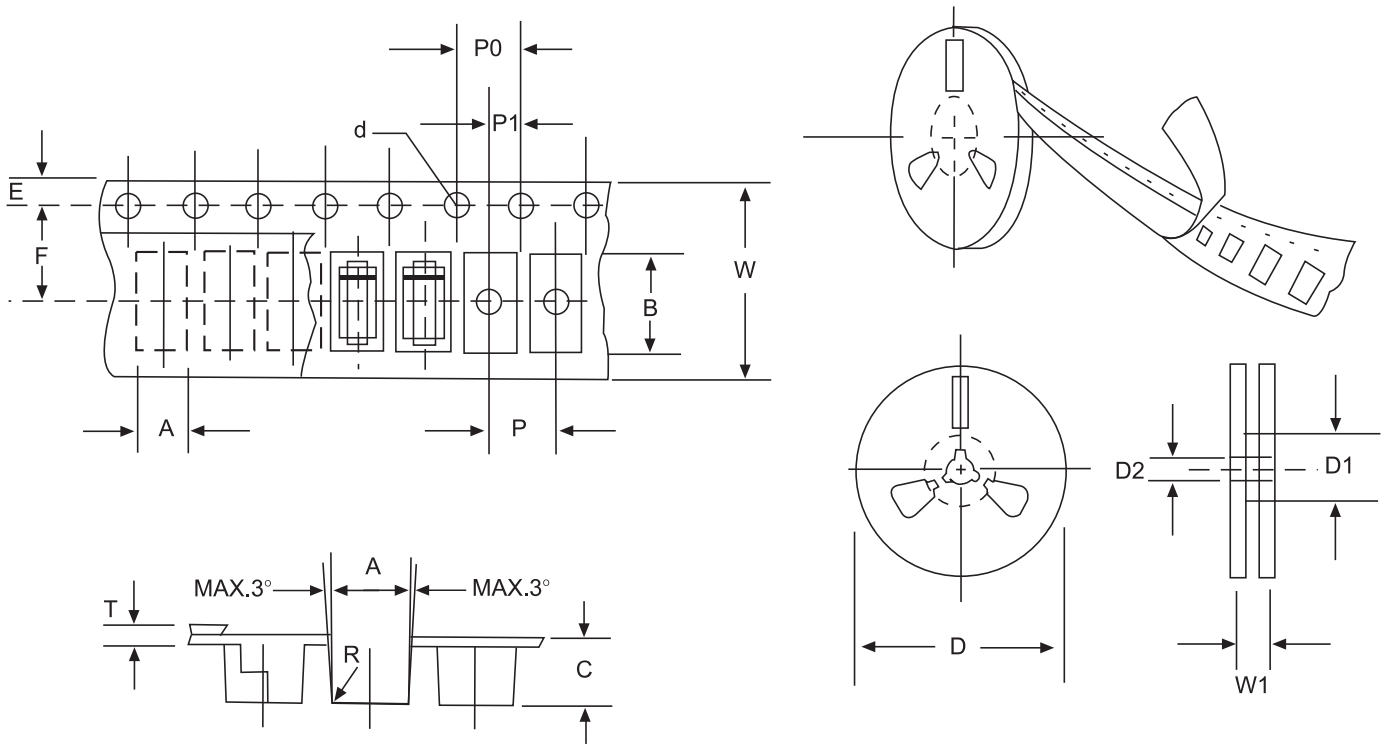


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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)
Stroket 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.