

CDSPB40J-HF Thru. CDSPB40K-HF

Reverse Voltage: 600 to 800 Volts

Forward Current: 4.0 A

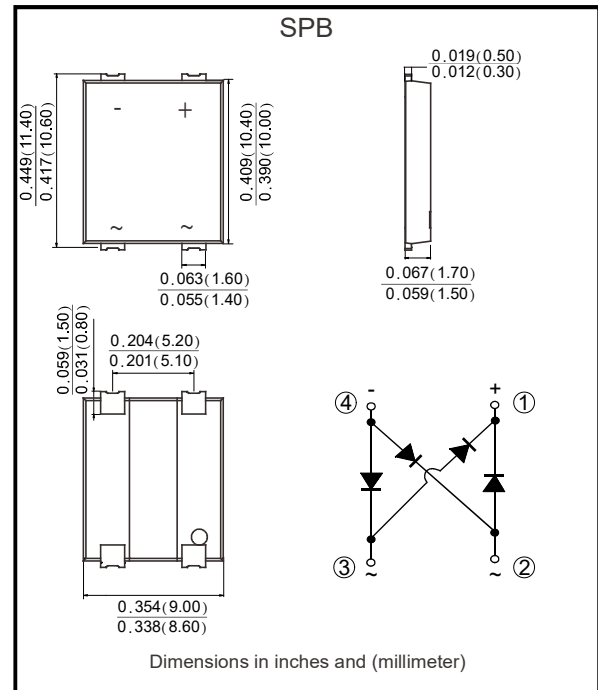
RoHS Device
Halogen Free

Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed:
260°C/10 seconds

Mechanical data

- Case: SPB molded plastic
- Molding compound, UL flammability classification rating 94V -0
- Terminals: Leads solderable per MIL-STD -750,
- Mounting position: Any



Maximum Ratings (@T_A = 25°C unless otherwise specified)

Characteristic	Symbol	CDSPB40J	CDSPB40K	Units
Peak repetitive reverse voltage	V _{RRM}	600	800	V
RMS reverse voltage	V _{RMS}	420	560	V
DC blocking voltage	V _{DC}	600	800	V
Maximum average forward output current	I _{F(AV)}	4.0		A
Peak forward surge current, 8.3ms single half-sine-wave	@T _J = 25°C I _{FSM}	135		A
I ² t Rating for fusing	@T _J = 25°C I ² t	76		A ² s

Thermal Characteristics

Parameter	Symbol	CDSPB40J	CDSPB40K	Units
Typical thermal resistance per leg (Note 1)	R _{θJA}	38		°C /W
	R _{θJC}	10.4		
	R _{θJL}	7.5		
Operating junction temperature range	T _J	- 55 ---- + 150		°C
Storage temperature range	T _{STG}	- 55 ---- + 150		°C

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

Company reserves the right to improve product design , functions and reliability without notice.

Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage	V _F	I _F =2.0A Per Diode		0.91	0.95	V
		I _F =4.0A Per Diode		0.95	1.0	
Maximum Reverse current	I _R	Rated V _R , Per Diode	@T _j =25°C	0.5	1.0	μA
			@T _j =150°C	40	100	

Ratings and Characteristic Curves (@T_A = 25°C unless otherwise noted)

Fig.1-Forward Current Derating Curve

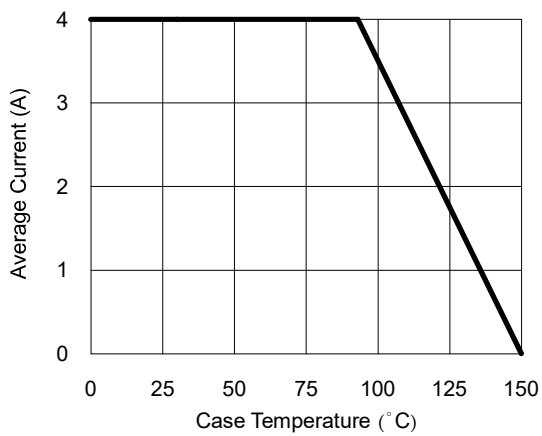


Fig.2- Surge Current Derating Curve

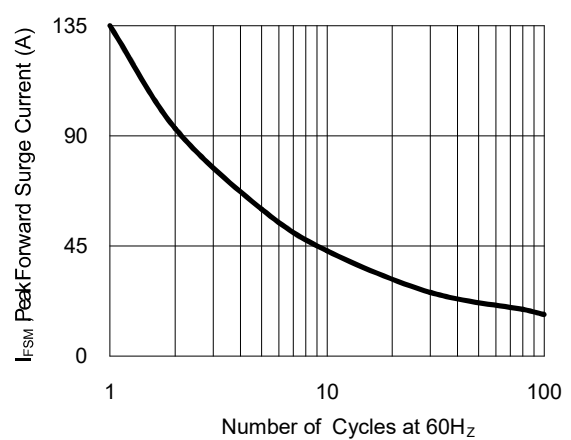


Fig.3- Typical Forward Voltage Characteristic

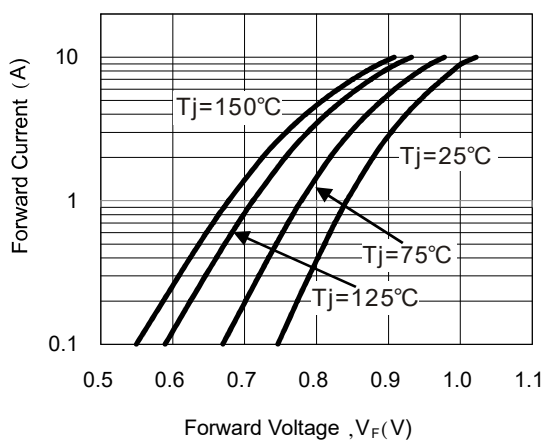
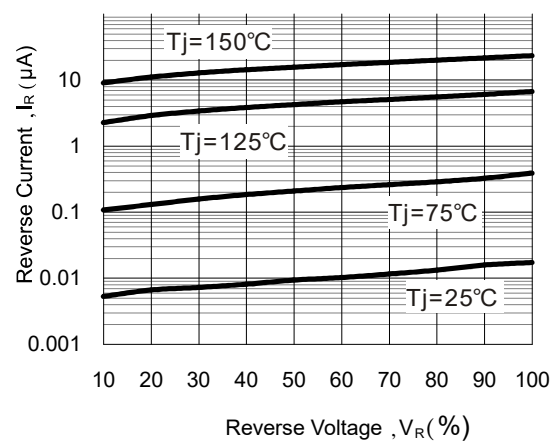
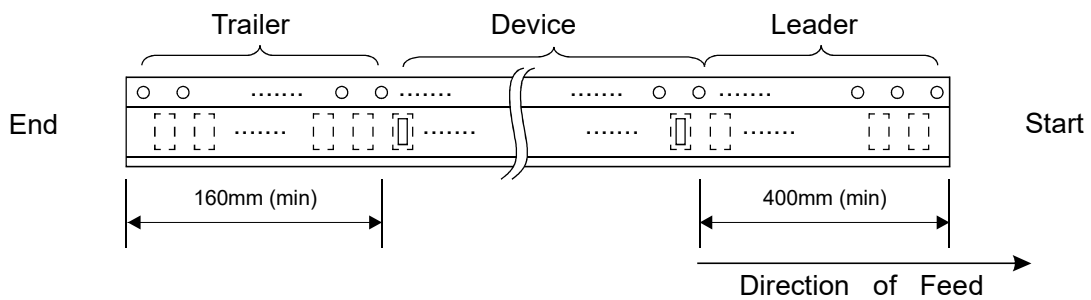
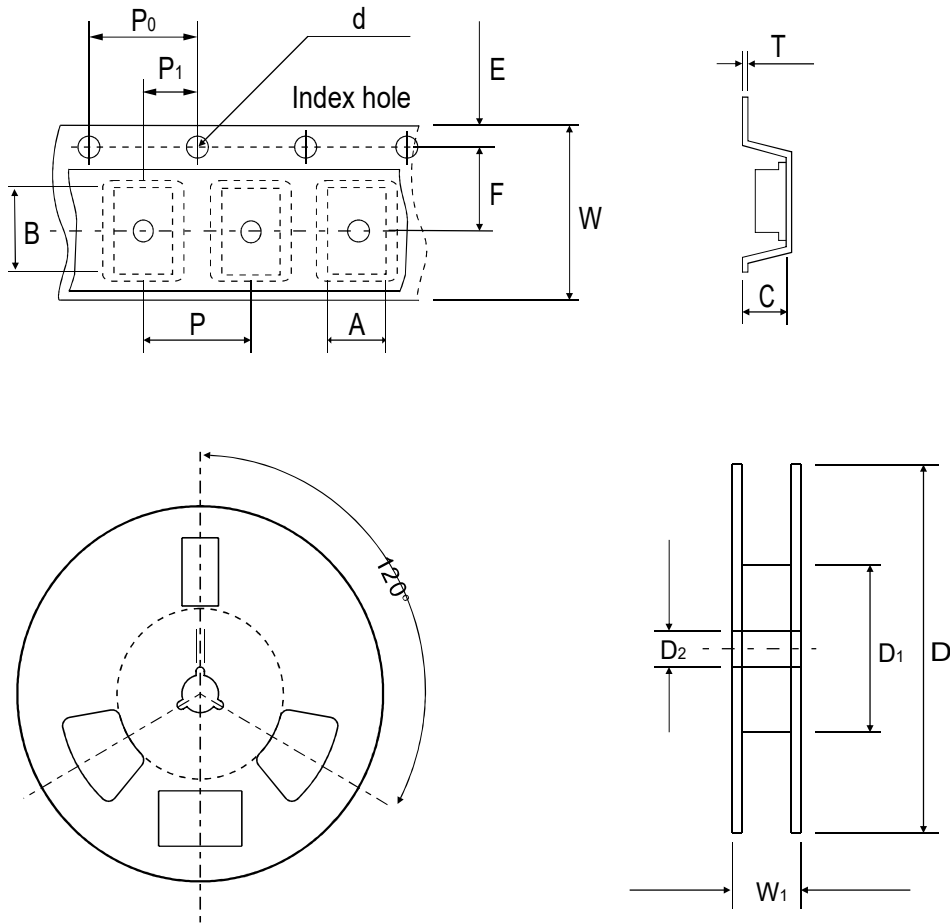


Fig.4- Typical Reverse Characteristic



Reel Taping Specification



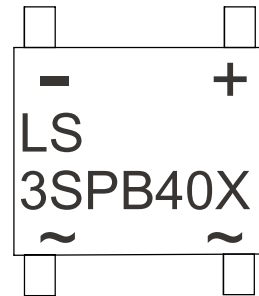
SPB	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	8.64 ± 0.10	10.41 ± 0.10	3.81 ± 0.10	1.55 ± 0.05	330	50.0 MIN.	13.00 ± 0.20
	(inch)	0.340 ± 0.004	0.409 ± 0.004	0.150 ± 0.004	0.061 ± 0.002	13	1.969 MIN.	0.512 ± 0.008

SPB	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	7.50 ± 0.05	12.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.32	16.00 ± 0.30	16.00~18.40
	(inch)	0.069 ± 0.004	0.295 ± 0.002	0.472 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.013	0.630 ± 0.012	0.630~0.724

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Marking Code

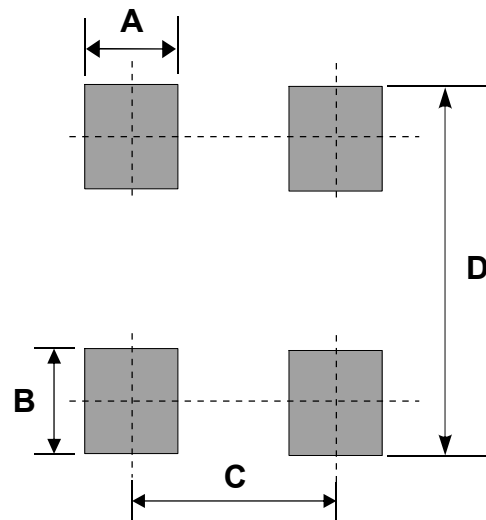
Part Number	Marking code
CDSPB40J-HF	3SPB40J
CDSPB40K-HF	3SPB40K



X = Product type marking code

Suggested PAD Layout

SIZE	SPB	
	(mm)	(inch)
A	1.80	0.070
B	1.80	0.070
C	5.20	0.204
D	11.6	0.456



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SPB	1,500	13