

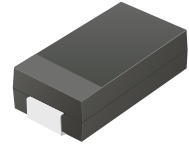
CDBA140L-HF

Reverse Voltage: 40 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen Free

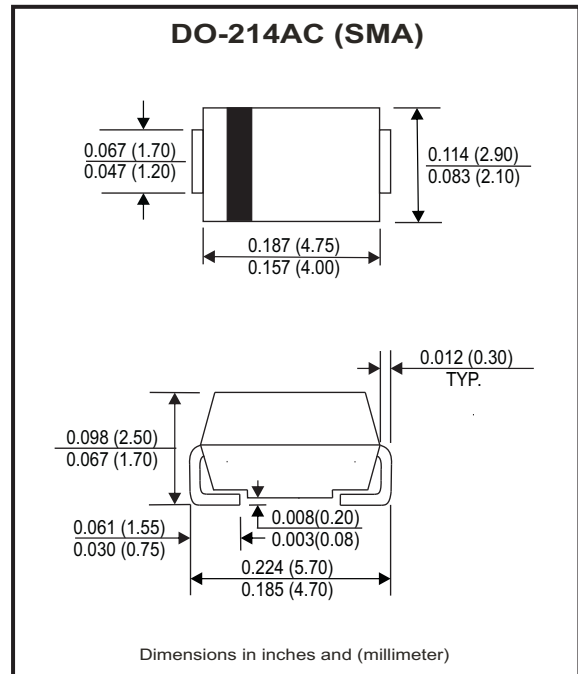


Features

- Low Profile surface mount applications in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guard ring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

Mechanical data

- Epoxy: UL94-V0 rate flame retardant.
- Case: Molded plastic, DO-214AC / SMA
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- weight: 0.055 grams



Maximum Ratings and Electrical Characteristics

Ratings at Ta=25°C unless otherwise noted.
 Single phase, half wave, 60Hz, resistive or inductive loaded.
 For capacitive load, derate current by 20% .

Parameter	Symbol	CDBA140L-HF	Units
Max. Repetitive peak reverse voltage	V _{RRM}	40	V
Max. DC blocking voltage	V _{DC}	40	V
Max. RMS voltage	V _{RMS}	28	V
Max. instantaneous forward voltage @ 1.0A, T _A =25°C	V _F	0.40	V
Operating Temperature	T _J	-50 to +100	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Units
Forward rectified current	see Fig.2	I _o			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I _{FSM}			30	A
Reverse current	V _R =V _{RRM} T _A =25°C	I _R			1.0	mA
	V _R =V _{RRM} T _A =100°C	I _R			20	mA
Thermal resistance	Junction to ambient	R _{θJA}		80		°C/W
Diode junction apacitance	f=1MHz and applied 4V DC reverse Voltage	C _J		130		pF
Storage temperature		T _{STG}	-50		+150	°C

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RATING AND CHARACTERISTIC CURVES (CDBA140L-HF)

Fig.1 - Typical Forward Characteristics

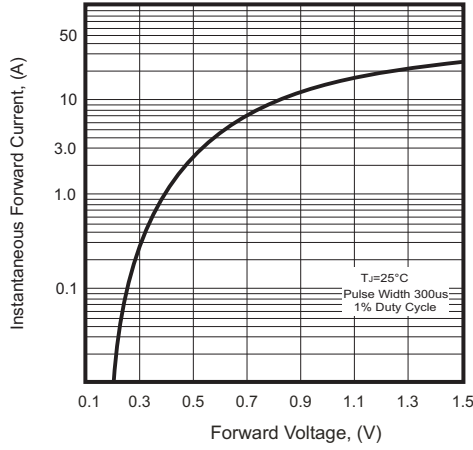


Fig.2 - Typical Forward Current Derating Curve

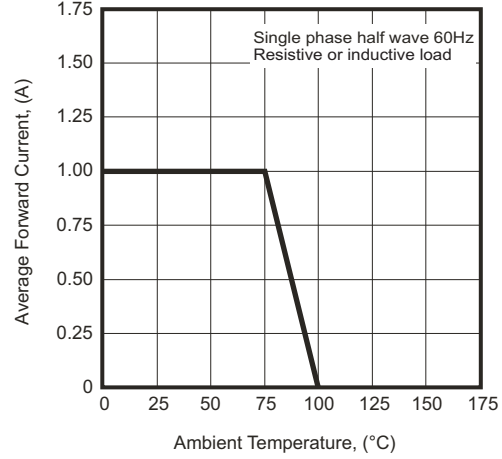


Fig.3 - Typical Reverse Characteristics

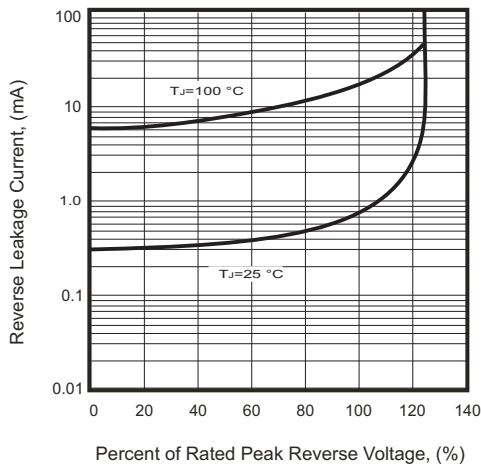


Fig.4 - Maximum Non-repetitive Forward Surge Current

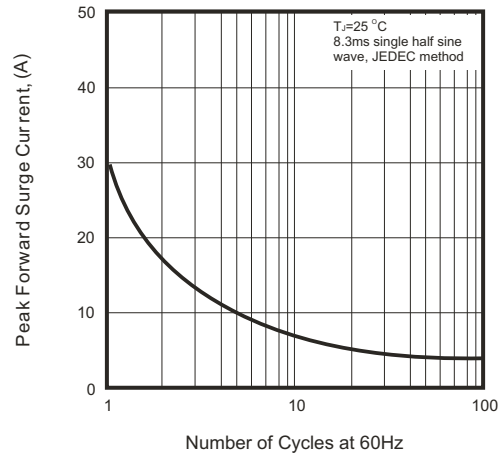
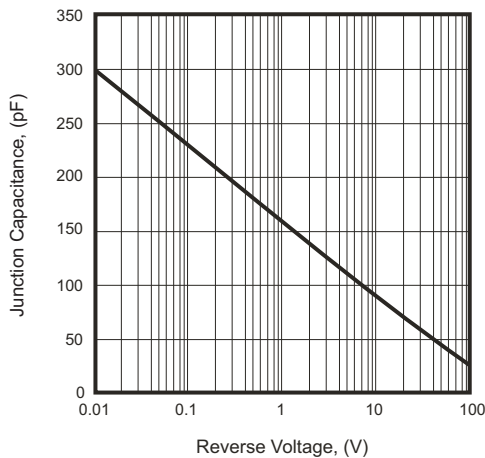
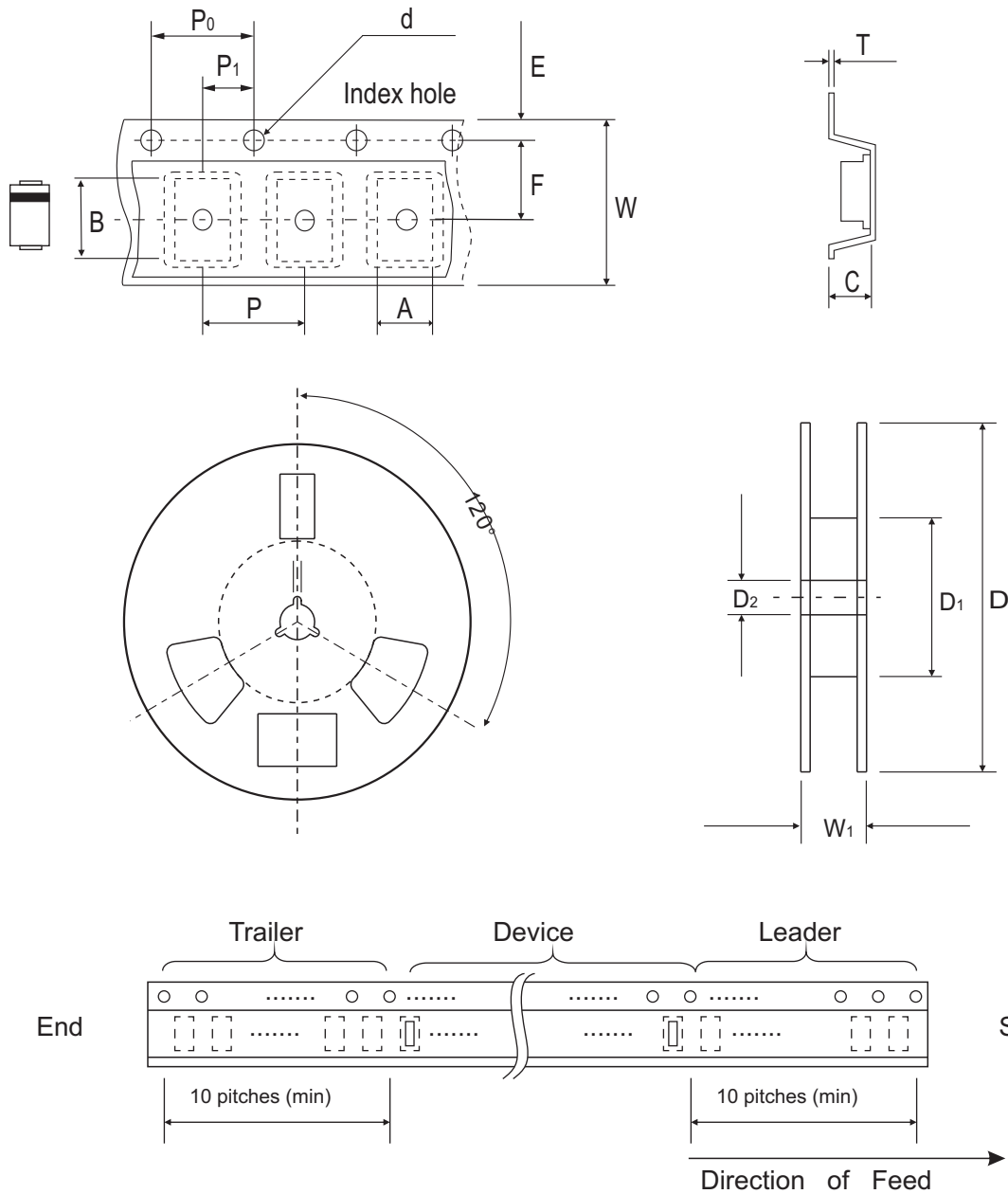


Fig.5 - Typical Junction Capacitance



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Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.70 MAX.	5.30 MAX.	2.66 MAX.	1.50 ± 0.10	330 ± 2.00	50.0 MIN.	13.50 ± 1.00
	(inch)	0.106 MAX.	0.209 MAX.	0.105 MAX.	0.059 ± 0.004	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.039

DO-214AC (SMA)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.60 MAX.	12.0 ± 0.30	18.4 MAX.
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.024 MAX.	0.472 ± 0.012	0.724 MAX.

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