

SF15A05W Thru SF15A60W

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SF15A05W Thru SF15A60W

15A Super Fast Recovery Rectifiers

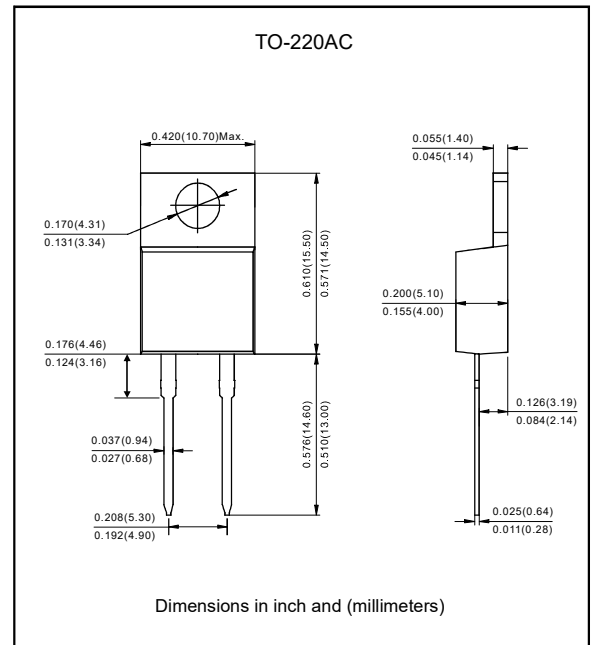
Features

- The plastic package carries Underwriters Laboratory Flame ability Classification 94V-0.
- Construction utilizes void-free molded plastic technique.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 250°C/10 sec at terminals.
- Lead free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen-free parts, ex. SF15A05W-H.

Mechanical data

- Case : Molded plastic body : TO-220AC.
- Terminals: Solder plated, solder able per MIL-STD-750, Method 2026.
- Polarity : Indicated by cathode band.
- Mounting Position: Any.

Package outline



Maximum ratings and electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

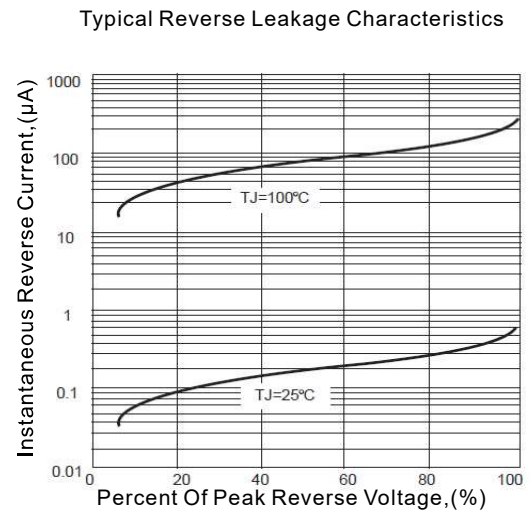
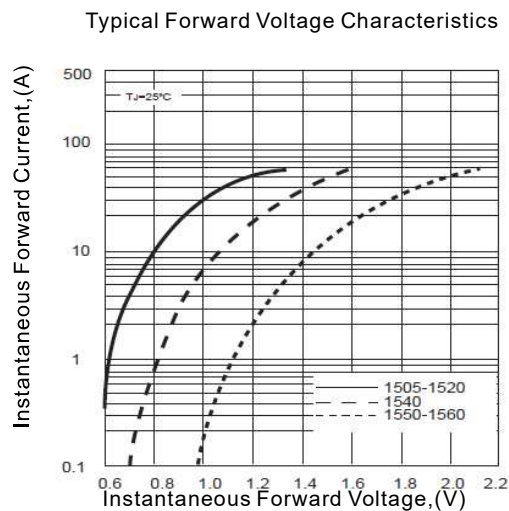
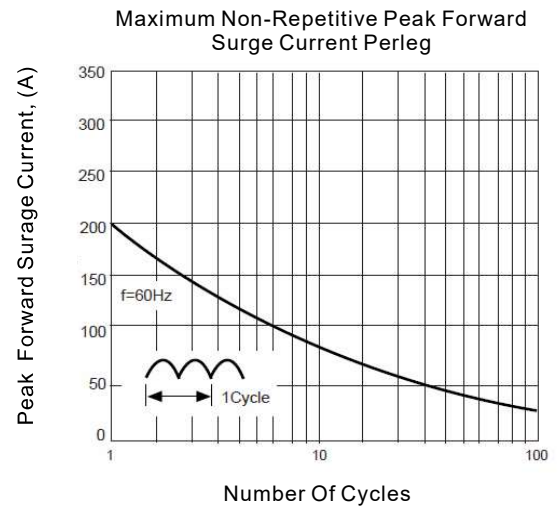
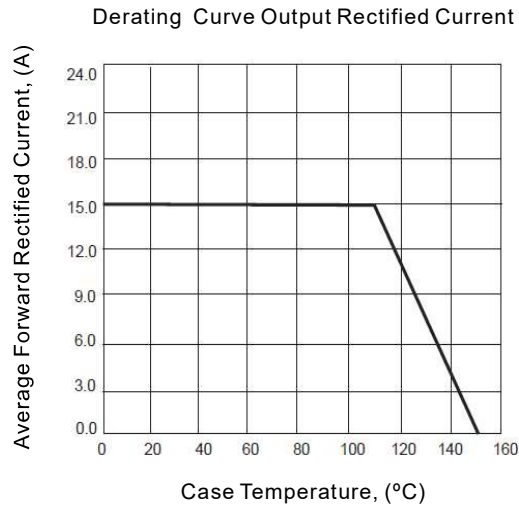
Parameter	Symbol	SF15A 05W	SF15A 10W	SF15A 20W	SF15A 40W	SF15A 50W	SF15A 60W	Unit
Repetitive peak reverse voltage	V _{RRM}	50	100	200	400	500	600	V
RMS voltage	V _{RMS}	35	70	140	280	350	420	V
DC blocking voltage	V _{DC}	50	100	200	400	500	600	V
Maximum average forward rectified current (T _c =110°C)	I _(AV)	15.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	200.0						A
Maximum instantaneous forward voltage at 15.0A	V _F	1.0			1.3	2.2		V
Maximum DC reverse current (T _A =25°C) At rated DC blocking voltage (T _A =125°C)	I _R	10 500						μA
Maximum reverse recovery time	T _{rr}	35						ns
Typical thermal resistance	R _{θJA}	3.5						°C/W
Operating junction temperature range	T _J	-55 to +150						°C
Storage temperature range	T _{STG}	-55 to +150						°C

Note :

1.Reverse recovery time test condition: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{tr}=0.25\text{A}$.

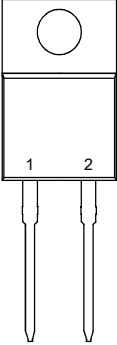
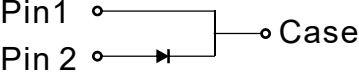
SF15A05W Thru SF15A60W

Rating and characteristic curves



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Pinning information

Pin	Simplified outline	Symbol
Pin1 Cathode Pin2 Anode		

Marking

Type number	Marking code
SF15A05W	SF1505
SF15A10W	SF1510
SF15A20W	SF1520
SF15A40W	SF1540
SF15A50W	SF1550
SF15A60W	SF1560

Tube packing

Package	Tube (pcs)	Tube Size (m/m)	Box (pcs)	Inner Box (m/m)	Carton (pcs)	Carton Size (m/m)
TO-220AC	50	525 x 31.9 x 6.4	1,000	545 x 150 x 45	5,000	575 x 245 x 170

SF15A05W Thru SF15A60W**Suggested thermal profiles for soldering processes**

1. Lead free temperature profile wave-soldering

