16.0Amp Super Fast Recovery Rectifiers

Features

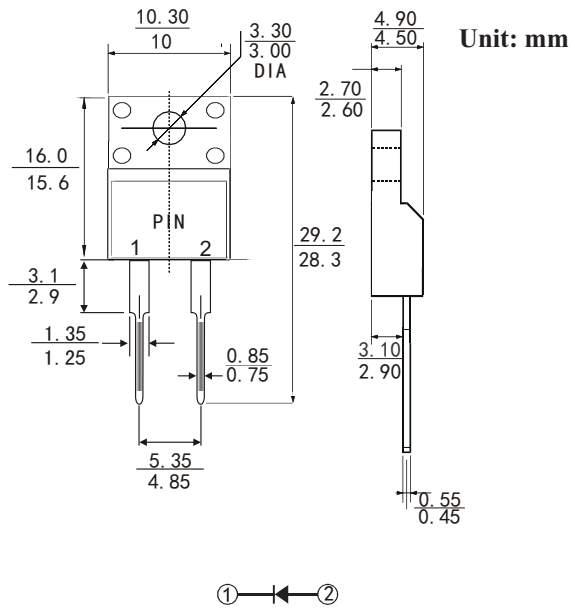
- Adopt FRED chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package**:ITO-220AC
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102



Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MURF 1605	MURF 1610	MURF 1620	MURF 1640	MURF 1650	MURF 1660	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	500	600	V
Maximum average forward rectified current at Tc=110℃	$I_{(AV)}$	16.0						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 16.0A	V_F	1.0			1.3			V
Maximum DC reverse current at rated DC blocking voltage T_A =25℃ / T_A=125℃	I_R	10 500						u A
Maximum reverse recovery time	Trr	35			50			ns
Typical thermal resistance	R_{qJC}	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: IF=0.5A IR=1.0A Irr=0.25A

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

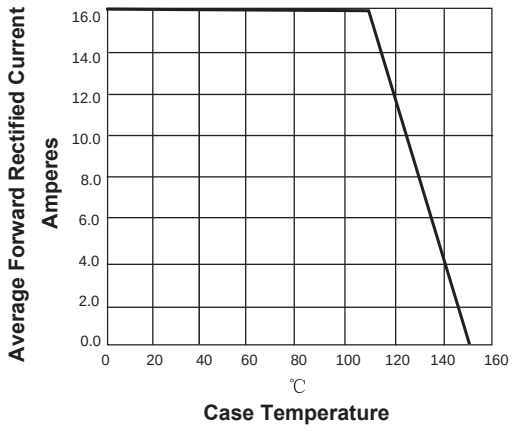


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

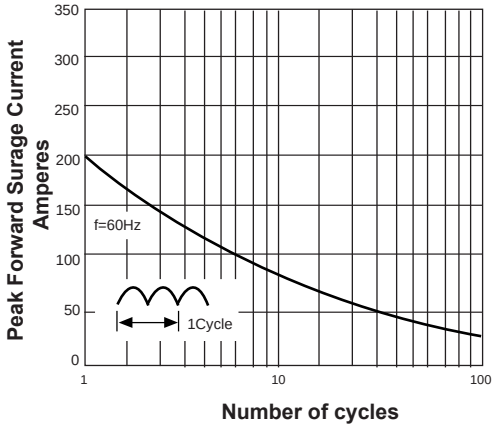


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

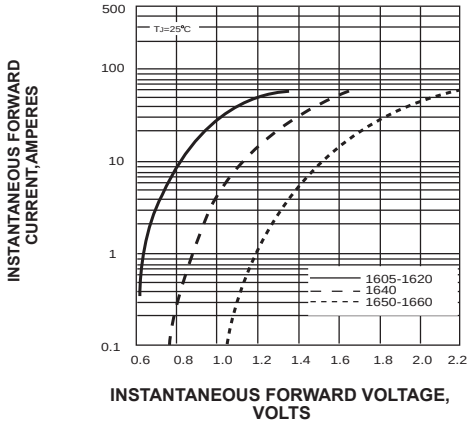


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS