Superfast Recovery Rectifier

multicomp PRO

Features:

- Schottky barrier chip
- Guard ring for over voltage protection
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability
- Plastic package has UL flammability classification 94V-0

RoHS Compliant

Mechanical Data:

Case	: TO-220AC molded plastic
Terminals	: Pure tin plated, lead solderable per MIL-STD-750, method 2026
Polarity	: As marked on the body
Weight	: 2.1 grams
Mounting Position	: Any
Reverse Voltage	: 150 Volts
Forward Current	: 10 Amperes

Typical Applications

For use in high frequency rectifier of switching mode power supplies, Freewheeling Diode, DC/DC converters or polarity protection application

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz.
For capacitive load, derate current by 20%.

Characteristics	Symbol	Values	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	150	
Max. RMS Voltage	V_{RMS}	105	V
Max. DC Blocking Voltage	V_{DC}	150	
Max. Average Forward	$I_{(AV)}$	10	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	150	A
Max. Forward Voltage at 10A per leg	V_F	0.92	V
Max. DC Reverse Current at $T_J = 25°C$ Rated DC Blocking Voltage at $T_J = 125°C$	I_R	0.05 20	mA
Typical Thermal Resistance	$R_{\theta JC}$	2.2	°C/W
Operating Temperature Range	T_J	-65 to +150	°C
Storage Temperature Range	T_{STG}		

Note:

1. 1.The typical data above is for reference only.

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicomp PRO

Page <1>   23/09/19   V1.0

Superfast Recovery Rectifier

multicompPRO

Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE
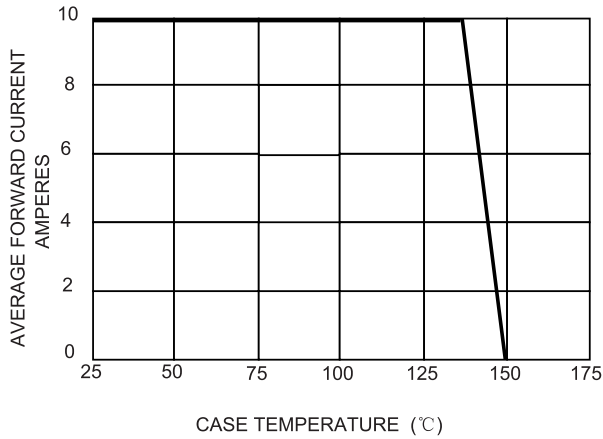
FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

PULSE WIDTH 8.3ms
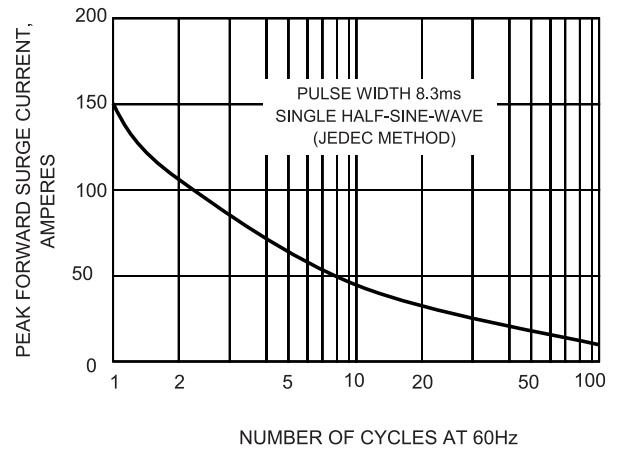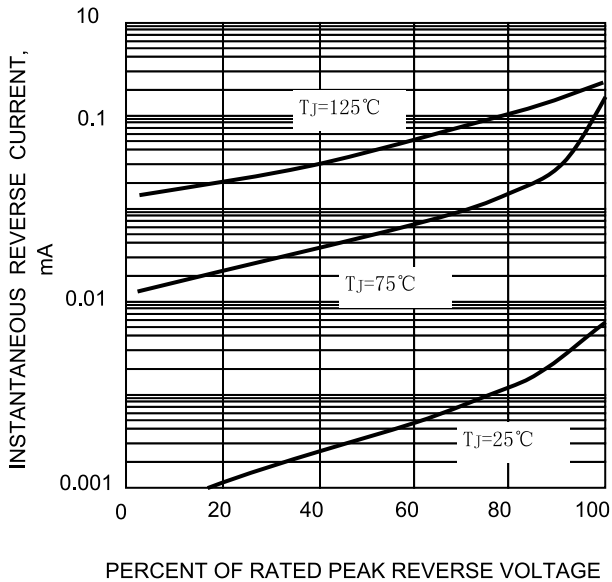SINGLE HALF-SINE-WAVE
(JEDEC METHOD)

FIG.3-TYPICAL REVERSE CHARACTERISTICS

FIG.4-TYPICAL FORWARD CHARACTERISTICS

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicompPRO

Page <2>   23/09/19   V1.0

Superfast Recovery Rectifier

multicomp PRO

Dimensions:

TO-220AC

.135(3.44)
.103 (2.62)

.413(10.5)
.374(9.5)

.153(3.9)
.146(3.7)

.189(4.8)
.173(4.4)

.055(1.4)
.047(1.2)

.270(6.9)
.230(5.8)

.610(15.5)
.583(14.8)

.04 MAX
(1.0)

.057(1.45)
.045(1.14)

.177
(4.5)
MAX

.583(14.8)
.531(13.5)

.043(1.1)
.032(0.8)

.102(2.6)
.091(2.3)

.024(0.6)
.012(0.3)

.138
(3.5) MAX
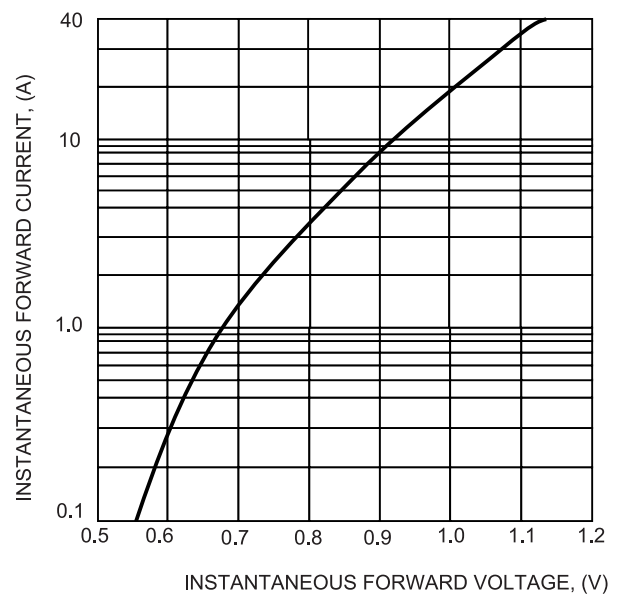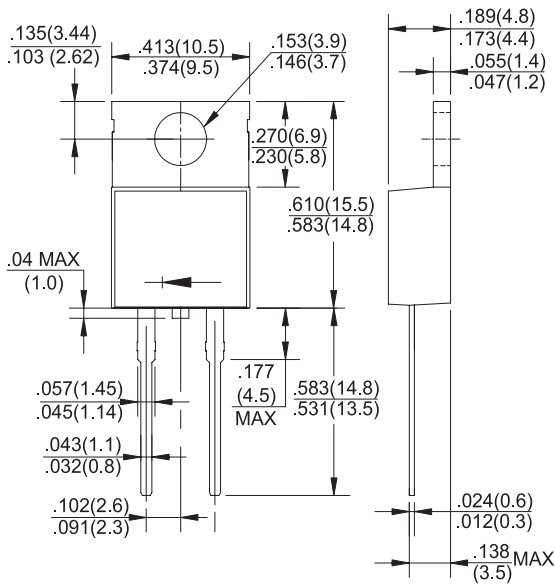
Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Superfast Recovery Rectifier	MBR10150+

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicomp PRO

23/09/19   V1.0