



# CHENMKO ENTERPRISE CO.,LTD

## HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE 50 - 600 Volts CURRENT 4.0 Amperes

**MUR405PT  
THRU  
MUR460PT**

Lead free devices

### FEATURES

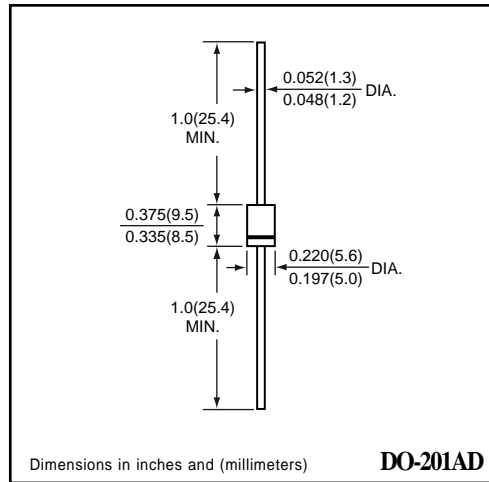
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss, high efficiency
- \* Low leakage
- \* High current capability
- \* High speed switching
- \* High current surge
- \* High reliability
- \* High temperature soldering guaranteed : 260°C/10 seconds at terminals

### MECHANICAL DATA

**Case:** JEDEC DO-201AD molded plastic  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Indicated by cathode band  
**Weight:** 1.2 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



### MAXIMUM RATINGS ( At TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	MUR405PT	MUR410PT	MUR415PT	MUR420PT	MUR430PT	MUR440PT	MUR450PT	MUR460PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	Vdc	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current	Io	4.0@TA=80°C			4.0@TA=40°C					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	125			70					Amps
Typical thermal resistance ( NOTE 1 )	R θJC	50								°C / W
Operating and Storage Temperature Range	TJ, TSTG	-65 to +175								°C

### ELECTRICAL CHARACTERISTICS ( At TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	MUR405PT	MUR410PT	MUR415PT	MUR420PT	MUR430PT	MUR440PT	MUR450PT	MUR460PT	UNITS
Maximum Instantaneous Forward Voltage at 4.0 A DC	VF	0.90			1.25					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage at TJ = 25°C	IR	5.0			10					uAmps
Maximum Full Load Reverse Current Average, Full Cycle 0.375" (9.5mm) lead length at TJ = 150°C		150			250					uAmps
Maximum Reverse Recovery Time (Note 2)	trr	25			50					nSec

NOTES : 1. Thermal Resistance from Junction to lead and from junction to ambient with 0.375" (9.5mm) lead length, both leads attached to heatsink  
 2. Test Conditions : IF = 0.5 A, IR = -1.0 A, IRR = -0.25 A

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# RATING CHARACTERISTIC CURVES ( MUR405PT THRU MUR460PT )

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

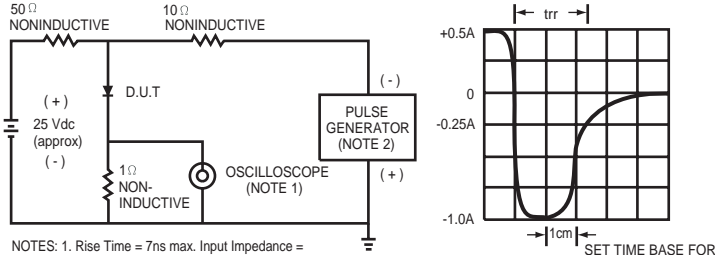


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

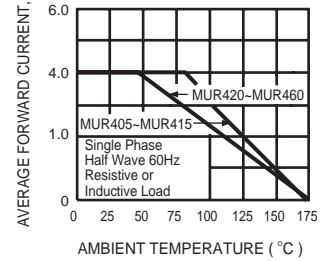


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

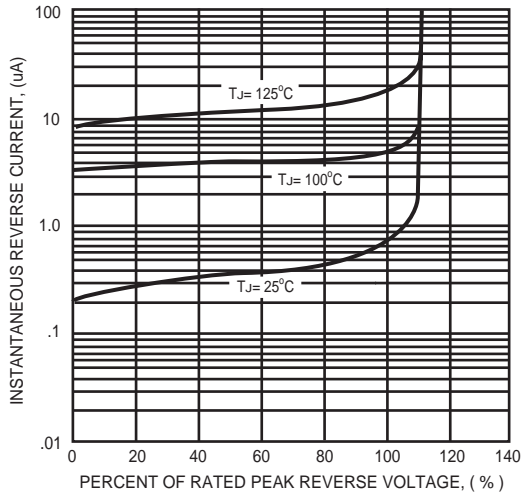


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

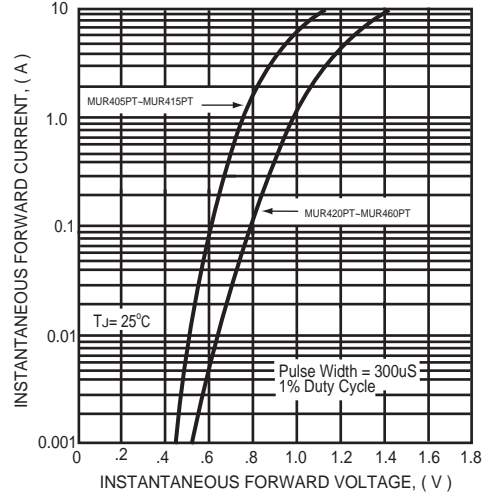


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

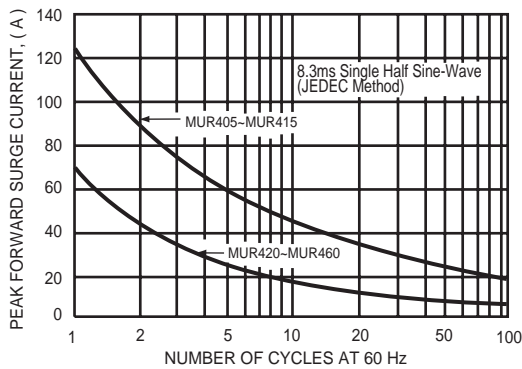


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

