

RL251 THRU RL257

GENERAL PURPOSE RECTIFIERS



VOLTAGE: 50~1000 Volts	CURRENT: 2.5 Amperes	DO-15	Marking and Polarity
FEATURES <ul style="list-style-type: none"> ■ Glass passivated chip junction ■ Low Forward Voltage Drop for high efficiency ■ Low leakage current for high reliability ■ High forward surge capability for high reliability 			
MECHANICAL DATA <ul style="list-style-type: none"> ■ Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026 ■ Mounting Position: Any ■ Lead Free: Lead Free Finish, RoHS Compliant ■ Weight: 0.40 grams 			
TYPICAL APPLICATIONS <ul style="list-style-type: none"> ■ For use in low voltage ,high frequency inverters ,DC/DC converters, free wheeling ,and polarity protection applications 			
Remark: <ul style="list-style-type: none"> ①. NH=niuhang trademark ②. RL25x=Modle,x=1,2,3,4,5,6,7 ③. FF=Production line,According to actual changes 			

Maximum Ratings (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	RL	RL	RL	RL	RL	RL	RL	Unit
		251	252	253	254	255	256	257	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current(see fig.1)	$I_{F(AV)}$	2.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)(see fig.5)	I_{FSM}	50							A
Current Squared Time Per Diode($t < 8.3ms$)	I^2t	10.38							A ² sec

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Parameter	Symbol	RL	RL	RL	RL	RL	RL	RL	Unit
		251	252	253	254	255	256	257	
Maximum instantaneous forward voltage (see fig.2) (Note 1)	V_F	1.0							V
Maximum instantaneous reverse current at rated DC blocking voltage (see fig.3)(Note 1)	I_R	$T_A=25^{\circ}C$ VR= V_{RRM}							5
		$T_A=125^{\circ}C$ VR= 80%* V_{RRM}							200
Typical junction capacitance(see fig.4)	C_J	4V,1MHz							53
									pF

Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	RL	RL	RL	RL	RL	RL	RL	Unit
		251	252	253	254	255	256	257	
Operating junction	T_J	-55 to 150							°C
Storage temperature range	T_{STG}	-55 to 150							
Typical thermal resistance (Note 2)	$R_{\theta JA}$	35							°C/W
	$R_{\theta JC}$	8							

Note: 1. Pulse width < 300 uS, Duty cycle < 2%
2. P. C. B mounted with 0.1*0.1"(2.54 x 2.54 mm) copper Pad Areas