

OPTOELECTRONICS — EMITTERS/DETECTORS (continued)

Silicon Photodetectors (continued)

Phototransistors

Device	Light Current		H mW/cm ²	V(BR)CEO Volts Min	t _r , t _f /t _{on} , t _{off} * @ Typ μs		I _L μA	Case
	mA Typ	@ V _{CC}						
MRD150	2.2	20	5.0	40	2.5/4.0	20	1000	173-01 Style 1
MRD310	3.5	20	5.0	50	2.0/2.5	20	1000	82-05 Style 1
MRD300	8.0	20	5.0	50	2.0/2.5	20	1000	
MRD3050	0.1 Min	20	5.0	30	2.0/2.5	20	1000	
MRD3051	0.2 Min	20	5.0	30	2.0/2.5	20	1000	
MRD3054	0.5 Min	20	5.0	30	2.0/2.5	20	1000	
MRD3055	1.5 Min	20	5.0	30	2.0/2.5	20	1000	
MRD3056	2.0 Min	20	5.0	30	2.0/2.5	20	1000	
MRD701	0.5	5.0	0.5	30	10/60*	5.0*		349-01 Style 2



Actual Size



Case 82-05 Metal

Style 1:

- Pin 1. Emitter
- 2. Base
- 3. Collector

Style 3:

- Pin 1. Main Substrate
- 2. Main Substrate
- 3. Substrate
(do not connect)



Actual Size



Case 173-01 Plastic

Style 2:

- Pin 1. Anode
- 2. Cathode

Photo Triac Drivers and SCRs*

Device	Latching Irradiance Level H _{FT} mW/cm ² Max	On-State RMS Current mA Max	Off-State Output Terminal Voltage Volts Peak Min	Peak Blocking Current nA Typ	Case
MRD730	50	—	400	5.0	349C-01 Style 4
MRD740*	5.0	125	200	—	Style 5*
MRD3010	5.0	100	250	10	82-05 Style 3
MRD3011	2.0	100	250	10	



Actual Size



Case 349-01 Plastic

Style 2:

- Pin 1. Emitter
- 2. Collector



Actual Size



Case 349C-01 Plastic

Style 3:

- Pin 1. Output
- 2. Ground
- 3. V_{CC}

Style 4:

- Pin 1. Main Term #1
- 2. Substrate
(do not connect)
- 3. Main Term #2

Style 5:

- Pin 1. Gate
- 2. Anode
- 3. Cathode

Photo Schmitt Trigger

Device	Threshold Current mA		I _{F(off)} I _{F(on)} Typ	V _{CC} Volts	t _r , t _f μs Typ	Case
	ON Max	OFF Min				
MRD750	20	1.0	0.75	3-15	0.1	349C-01 Style 3