





SENSITRON SEMICONDUCTOR  
2000 CATALOG

**HERMETIC POWER MOSFETS**

**N-CHANNEL, (TO-254, TO-257)**

TYPE NUMBER	DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{(BR)DSS}$	CONTINUOUS DRAIN CURRENT $I_D$		MAXIMUM POWER DISSIPATION $P_D$	STATIC DRAIN TO SOURCE ON RESISTANCE $R_{DS(on)}$		MAXIMUM THERMAL RESISTANCE $R_{\theta JC}$	SIMILAR PART TYPE	PKG. STYLE
		25°C	100°C		25°C	Ohms			
SHD226413	30	20	20	75	.020	10	1.0	ⓄMTP75N03	
SHD226401	60	20	20	60	.035	20	0.74	IRFY044	
SHD226402	100	18	12	60	.092	12	0.88	IRFY140	
SHD226403	200	12	7.8	60	.19	7.8	0.81	IRFY240	
SHD226404	400	6.9	4.4	60	.55	4.4	0.74	IRFY340	
SHD226405	500	5.5	3.5	60	.85	3.5	0.74	IRFY440	
SHD226406	800	4.8	3.0	60	2.0	3.0	0.61	IRFYE40	
SHD226407	900	4.3	2.7	60	2.5	2.7	0.61	IRFYF40	
SHD226408	1000	3.9	2.5	60	3.5	2.5	0.61	IRFYG40	TO-257
2N7218	100	28	20	125	.077	20	1.0	IRFM140	
2N7224	100	34	21	150	.07	21	0.83	IRFM150	
SHD225601	100	75	50	200	.025	37.5	0.32	IXTM75N10	
SHD225602	100	75	50	200	.025	37.5	0.32	IXFM75N10	
2N7219	200	18	11	125	.18	11	1.0	IRFM240	
2N7225	200	27.4	17	150	.100	17	0.83	IRFM250	
SHD225603	200	50	30	200	.05	25	0.32	IXTM50N20	
SHD225604	200	50	30	200	.05	25	0.32	IXFM50N20	
2N7221	400	10	6.0	125	.55	6.0	1.0	IRFM340	
2N7227	400	14	9.0	150	.315	9.0	0.83	IRFM350	
2N7222	500	8.0	5.0	125	.85	5.0	1.0	IRFM440	
2N7228	500	12	8.0	150	.415	8.0	0.83	IRFM450	
SHD225605	500	24	18	200	.23	12	0.32	IXTM24N50	
SHD225606	500	24	18	200	.23	12	0.32	IXFM24N50	
SHD225607	600	20	12	200	.35	10	0.32	IXTM20N60	
SHD225608	600	20	12	200	.35	10	0.32	IXFM20N60	
SHD225609	800	13	8.0	200	.80	6.5	0.32	IXTM13N80	
SHD225610	800	13	8.0	200	.80	6.5	0.32	IXFM13N80	
SHD225611	900	12	7.2	200	.90	6.0	0.32	IXTM12N90	
SHD225612	900	12	7.2	200	.90	6.0	0.32	IXFM12N90	
SHD225613	1000	12	7.2	200	1.05	6.0	0.32	IXTM12N100	
SHD225614	1000	12	7.2	200	1.05	6.0	0.32	IXFM12N100	TO-254

**P-CHANNEL, (TO-254, TO-257)**

SHD226409	-100	-13	-8.2	60	.24	-13	0.88	IRFY9140	
SHD226410	-200	-7.7	-4.9	60	.58	-7.7	0.81	IRFY9240	
2N7236	-100	-18	-11	125	.20	-11	1.0	IRFM9140	
2N7237	-200	-11	-7.0	125	.51	-7.0	1.0	IRFM9240	

**Note:** Ceramic seals and GlidCop<sup>®</sup> leads available. See page A-2 for ordering instructions.





Ⓞ PRELIMINARY INFORMATION

(Hermetic Power MOSFETs, Continued on Next Page)

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HERMETIC POWER MOSFETs (Continued)

N-CHANNEL, SURFACE MOUNT

TYPE NUMBER	DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{(BR)DSS}$	CONTINUOUS DRAIN CURRENT $I_D$		MAXIMUM POWER DISSIPATION $P_D$	STATIC DRAIN TO SOURCE ON RESISTANCE $R_{DS(on)}$		MAXIMUM THERMAL RESISTANCE $R_{\theta JC}$	SIMILAR PART TYPE	PKG. STYLE	
		Amps	Amps		Watts	Ohms				Amps
SHD218413	30	50	50	100	.012	20	0.7	ⓄMTP75N03		
SHD2181	60	45	31	200	.02	31	0.6	IRFM054		
SHD2182	100	38	24	200	.055	24	0.6	IRFM150		
SHD2183	200	30	19	200	.85	19	0.6	IRFM250		
SHD2184	400	14	9.0	200	.30	9.0	0.6	IRFM350		
SHD2185	500	12	7.75	200	.40	7.75	0.6	IRFM450		
SHD2186	800	7.1	4.5	200	1.2	4.5	0.6	IRFAE50		
SHD2187	900	6.2	4.0	200	1.6	4.0	0.6	IRFAF50		
SHD2188	1000	5.6	3.5	200	2.0	3.5	0.6	IRFAG50		
SHD218413A	30	50	50	100	.012	20	0.7	ⓄMTP75N03		
SHD2181A	60	45	31	200	.02	21	0.6	IRFM054		
SHD2182A	100	38	24	200	.055	24	0.6	IRFM150		
SHD2183A	200	30	19	200	.085	19	0.6	IRFM250		
SHD2184A	400	14	9.0	200	.30	9.0	0.6	IRFM350		
SHD2185A	500	12	7.75	200	.40	7.75	0.6	IRFM450		
SHD2186A	800	7.1	4.5	200	1.2	4.5	0.6	IRFAE50		
SHD2187A	900	6.2	4.0	200	1.6	4.0	0.6	IRFAF50		
SHD2188A	1000	5.6	3.5	200	2.0	3.5	0.6	IRFAG50		
SHD218413B	30	50	50	100	.012	20	0.7	ⓄMTP75N03		
SHD2181B	60	45	31	200	.02	21	0.6	IRFM054		
SHD2182B	100	38	24	200	.055	24	0.6	IRFM150		
SHD2183B	200	30	19	200	.085	19	0.6	IRFM250		
SHD2184B	400	14	9.0	200	.30	9.0	0.6	IRFM350		
SHD2185B	500	12	7.75	200	.40	7.75	0.6	IRFM450		
SHD2186B	800	7.1	4.5	200	1.2	4.5	0.6	IRFAE50		
SHD2187B	900	6.2	4.0	200	1.6	4.0	0.6	IRFAF50		
SHD2188B	1000	5.6	3.5	200	2.0	3.5	0.6	IRFAG50		
SHD239501	60	45	31	200	.02	31	0.37	IRFM054		
SHD239502	100	38	24	200	.055	24	0.37	IRFM150		
SHD239601	100	75	50	300	.025	37.5	0.27	IXTM75N10		
SHD239602	100	75	50	300	.025	37.5	0.27	IXFM75N10		
SHD239503	200	30	19	200	.085	19	0.37	IRFM250		
SHD239603	200	50	30	300	.05	25	0.27	IXTM50N20		
SHD239604	200	50	30	300	.05	25	0.27	IXFM50N20		
SHD239504	400	14	9.0	200	.30	9.0	0.37	IRFM350		
SHD239505	500	12	7.75	200	.40	7.75	0.37	IRFM450		
SHD239605	500	24	18	300	.23	12	0.27	IXTM24N50		
SHD239606	500	24	18	300	.23	12	0.27	IXFM24N50		
SHD239607	600	20	12	300	.35	10	0.27	IXTM20N60		
SHD239608	600	20	12	300	.35	10	0.27	IXFM20N60		
SHD239506	800	7.1	4.5	200	1.2	4.5	0.34	IRFAE50		
SHD239609	800	13	8.0	300	.80	6.5	0.27	IXTM13N80		
SHD239610	800	13	8.0	300	.80	6.5	0.27	IXFM13N80		
SHD239507	900	6.2	4.0	200	1.6	4.0	0.34	IRFAF50		
SHD239611	900	12	7.2	300	.90	6.0	0.27	IXTM12N90		
SHD239612	900	12	7.2	300	.90	6.0	0.27	IXFM12N90		
SHD239508	1000	5.6	3.5	200	2.0	3.5	0.34	IRFAG50		
SHD239613	1000	12	7.2	300	1.05	6.0	0.27	IXTM12N100		
SHD239614	1000	12	7.2	300	1.05	6.0	0.27	IXFM12N100		

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① PRELIMINARY INFORMATION

**(Hermetic Power MOSFETs, Continued on Next Page)**

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**HERMETIC POWER MOSFETs (Continued)**

**P-CHANNEL, SURFACE MOUNT**

TYPE NUMBER	DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{(BR)DSS}$	CONTINUOUS DRAIN CURRENT $I_D$		MAXIMUM POWER DISSIPATION $P_D$	STATIC DRAIN TO SOURCE ON RESISTANCE $R_{DS(on)}$		MAXIMUM THERMAL RESISTANCE $R_{\theta JC}$	SIMILAR PART TYPE	PKG. STYLE
		Amps			Ohms	Amps			
		25°C	100°C						
SHD2189	-100	-18	-11	125	.20	-11	1.0	IRF9140	
SHD21810	-200	-11	-7	125	.50	-7	1.0	IRF9240	
SHD2189A	-100	-18	-11	125	.20	-11	1.0	IRF9140	
SHD21810A	-200	-11	-7	125	.50	-7	1.0	IRF9240	
SHD2189B	-100	-18	-11	125	.20	-11	1.0	IRF9140	
SHD21810B	-200	-11	-7	125	.50	-7	1.0	IRF9240	
SHD230409	-100	-13	-7.8	36	.22	-11	1.36	IRF9140	
SHD230410	-200	-8.5	-5.1	36	.52	-6	1.26	IRF9240	
SHD219409	-100	-18	-11	74	.20	-11	0.78	IRF9140	
SHD219410	-200	-11	-7	74	.50	-7	0.72	IRF9240	

**Notes:**

- All ratings are at  $T_C = 25^\circ\text{C}$  unless otherwise specified.
- Maximum operating and storage temperature  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$ .

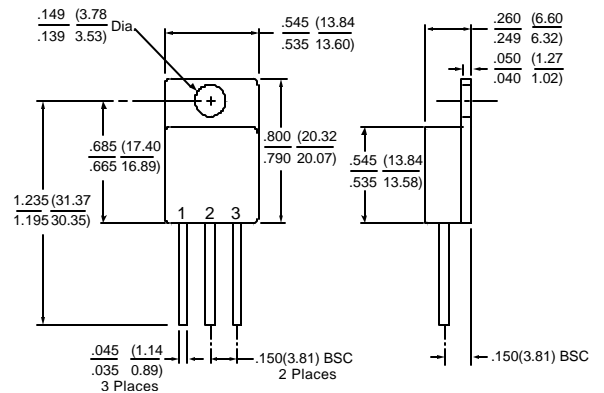
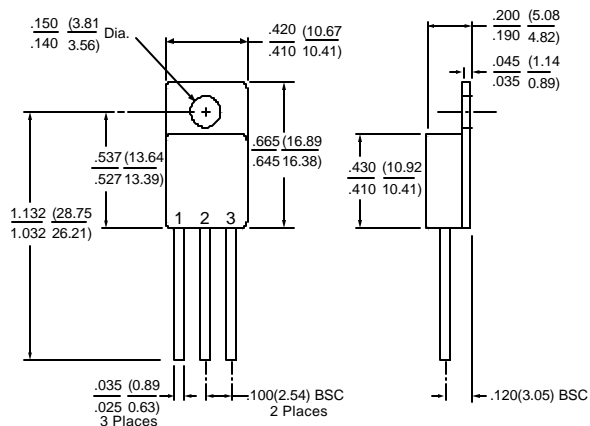
**PINOUTS**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
MOSFET - TO-257, TO-254	DRAIN	SOURCE	GATE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
MOSFET - SHD-5, SHD-5A, SHD-5B, LCC-3P, SHD-6	DRAIN	SOURCE	GATE

DEVICE TYPE	PIN(S) 1 & 15-28	PINS 5-11	PINS 2, 3, 13, 14
MOSFET - LCC-28T	SOURCE	DRAIN	GATE

**Note: Ceramic seals and GlidCop<sup>®</sup> leads available.**

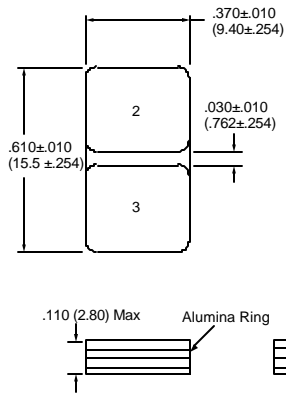


**TO-257**

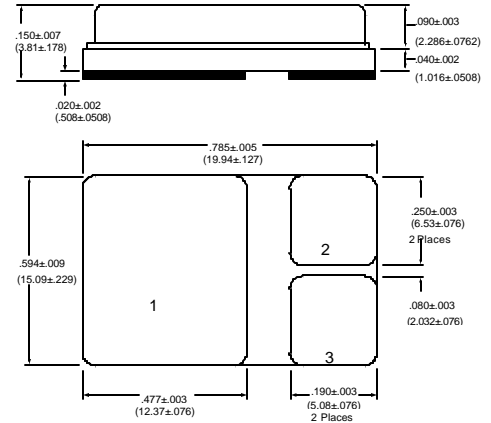
**TO-254**

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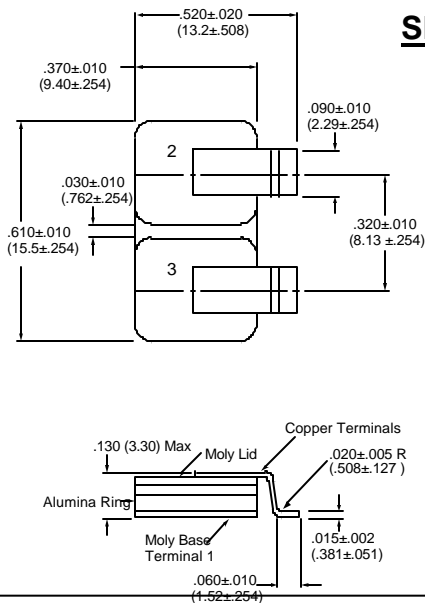
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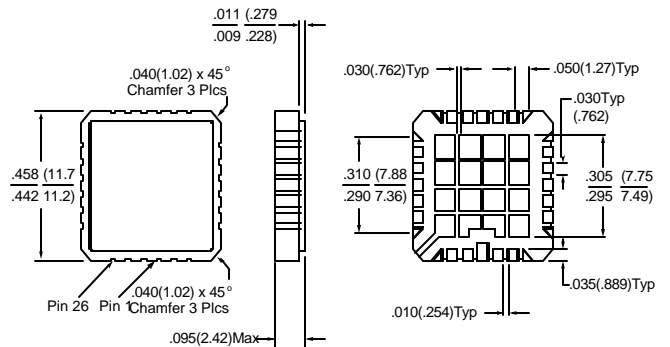
**SHD - 6**



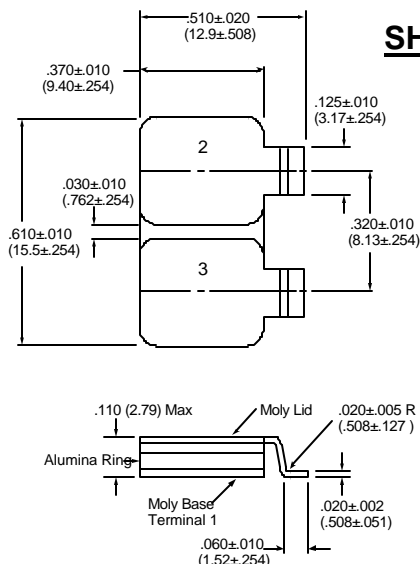
**SHD - 5B**



**LCC - 28T**



**SHD - 5A**



**LCC - 3P**

