Standard Power MOSFETs

Power MOS V® MOSFET Technology... is a patented self-aligned interdigitated open cell structure with improved switching and $R_{DS(ON)}$ advantages over our previous MOS IV® generation and over industry standard closed cell devices.

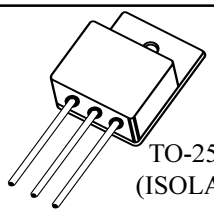
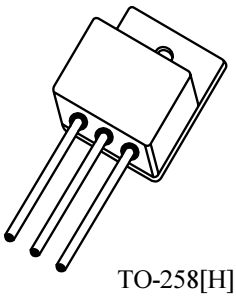
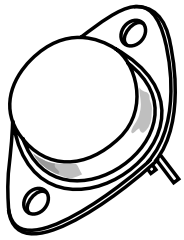
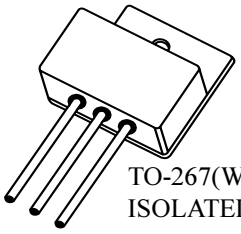
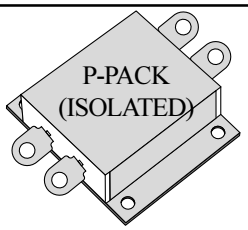
Feature	Result	Benefit
• Increased packing density	• Lower $R_{DS(ON)}$	• Lower conduction losses • Lower temperature
• Shallower diffusions	• Lower Capacitances and gate charge	• Faster switching speeds • Less switching loses
• Redesigned rings	• Higher blocking voltages	• Improved reliability • Lower leakage currents
• Chip layout changes	• More uniform signal propagation	• Faster switching
• Avalanche Energy Rated	• 100% tested and guaranteed	• More robust design

Power MOS V® FREDFET Technology... has all the features and benefits of the Power MOS V® MOSFET with a faster recovery intrinsic body diode.

- Faster reverse recovery (250ns)
  - Eliminates the need for external FRED or Schottky rectifiers
- Improved ruggedness of intrinsic diode
  - Commutative dv/dt rating of >5V/ns
- Soft recovery, low leakage current, lower recovery charge
- Used whenever intrinsic diode is expected to carry forward current
  - Half Bridge, Full Bridge, 3-Phase Bridge topologies

Contact your local APT Representative or APT directly for information regarding the availability of Hermetic FREDFETs.

Standard Power MOSFETs

BV_{DSS} Volts	$R_{DS(ON)}$ Ohms	I_D(Cont) Amps	P_D Watts	C_{iss}(pF) Typ	Q_g(nC) Typ	Surface Mount Pkg.	FREDFET Available	APT Part Number	Package Style
600	0.450	11.8	150	2600	115	CoolPack™1		APT6045CVR	 TO-254[C] (ISOLATED)
500	0.320	14.0	150	2650	110	CoolPack™1		APT5032CVR	
500	0.415	12.0	150	2410	103	CoolPack™1		2N7228/JXJV	
400	0.315	14.0	150	2400	100	CoolPack™1		2N7227/JX/JV	
1000	0.880	11.0	250	3700	185	CoolPack™2	Yes	APT10088HVR	 TO-258[H] (ISOLATED)
	1.100	9.0	200	3050	150	CoolPack™1	Yes	APT1001R1HVR	
800	0.580	13.5	250	3700	185	CoolPack™2	Yes	APT8058HVR	
	0.670	11.5	200	3050	150	CoolPack™1	Yes	APT8067HVR	
600	0.270	20.0	250	4300	185	CoolPack™2		APT6027HVR	
	0.370	15.5	200	3450	140	CoolPack™2		APT6037HVR	
500	0.190	24.0	250	4400	200	CoolPack™2	Yes	APT5019HVR	
	0.260	18.5	200	3600	140	CoolPack™2	Yes	APT5026HVR	
400	0.140	28.0	250	4500	195	CoolPack™2		APT4014HVR	
	0.180	22.0	200	3350	135	CoolPack™2		APT4018HVR	
200	0.042	50.0	250	5100	148	CoolPack™2	Yes	APT20M42HVR	
1000	1.100	9.0	200	3050	150	CoolPack™1	Yes	APT1001R1AVR	 TO-3[A]
800	0.650	11.5	200	3050	150	CoolPack™1	Yes	APT1001R1AVR	
600	0.320	17.5	235	3750	160	CoolPack™2		APT6032AVR	
	0.350	16.0	200	3450	140	CoolPack™2		APT6035AVR	
500	0.220	21.0	235	3700	150	CoolPack™2	Yes	APT5022AVR	
	0.240	18.5	200	3600	140	CoolPack™2	Yes	APT5024AVR	
	0.300	14.7	155	2650	110	CoolPack™1		APT5030AVR	
400	0.150	25.5	235	3600	160	CoolPack™2		APT4015AVR	
300	0.090	33.0	235	4100	130	CoolPack™2	Yes	APT30M90AVR	
1000	0.570	17.3	450	6600	335	CoolPack™3	Yes	APT10057WVR	 TO-267(W) ISOLATED
600	0.170	31.5	450	7500	315	CoolPack™3		APT6017WVR	
500	0.120	40.0	450	7400	312	CoolPack™3	Yes	APT5012WVR	
400	0.082	44.0	450	7410	330	CoolPack™3		APT40M82WVR	
200	0.026	65.0	450	8500	290	CoolPack™3	Yes	APT20M26WVR	
1000	0.250	33.0	625	15000	660	N/A	Yes	APT10025PVR	 P-PACK (ISOLATED)
600	0.075	60.5	625	16500	700	N/A		APT60M75PVR	
500	0.050	74.5	625	16300	690	N/A	Yes	APT50M50PVR	
400	0.035	89.0	625	16800	700	N/A		APT40M35PVR	
200	0.013	146.0	625	18000	630	N/A	Yes	APT20M13PVR	

Packages shown are not to scale