# High speed 600V discrete IGBTs feature very low saturation voltage

Advanced Power Electronics Corp. has recently released a new family of high speed 600V discrete IGBTs for use in AC and DC motor control, home appliances (such as air conditioning, refrigerators, microwave ovens), UPS, solar inverters, and induction cookers.

All AP20GT60 family IGBTs feature a collector/emitter voltage rating, VCEs, of 600V, a peak gate emitter voltage rating, VGE, of ±20V, and a very low saturation voltage.

AP20GT60P-HF-3 benefits from a typical saturation voltage, VCE(sat), of 1.8V at Ic=20A, a maximum power dissipation at 25degC of 104W, and comes in a fully RoHS-compliant and halogen-free TO-220 package. AP20GT60ASP-HF-3 (with internal diode) has a typical saturation voltage of 1.7V at Ic=19A, a maximum power dissipation at 25degC of 78W, a diode forward current rating of 8A, and a diode pulse forward current rating of 40A. It comes in a fully RoHS-compliant and halogen-free TO-220 package.

Featuring a saturation voltage of 1.8V at Ic=20A and a maximum power dissipation at 25degC of 25W, the AP20GT60I-HF-3 device comes in a fully RoHS-compliant halogen-free TO-220CFM insulated package. The corresponding AP20GT60ASI-HF-3 IGBT with internal diode has a typical saturation voltage of 1.7V at Ic=12A, a maximum power dissipation at 25degC of 33W, a diode forward current rating of 8A, and a diode pulse forward current rating of 40A . The device comes in a fully RoHS-compliant halogen-free TO-220CFM insulated package.

AP20GT60W-HF-3 is in the fully RoHS-compliant halogen-free TO-3P allowing maximum power dissipation at 25degC of 125W. It also benefits from a typical saturation voltage of 1.8V at Ic=20A. The equivalent AP20GT60SW-HF-3 device has the built-in fast recovery diode, with a diode forward current rating of 40A, and a typical saturation voltage of 1.8V at Ic=20A. Maximum power dissipation at 25degC

is also 125W in a fully RoHS-compliant halogen-free TO-3P package.

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