

# 650V XPT™ IGBTs

## For demanding high-speed hard-switching power conversion systems

### FEATURES

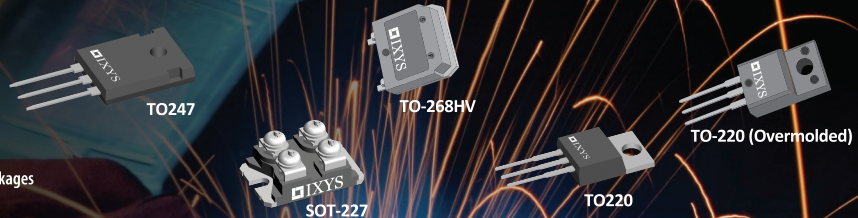
- Optimized for 20kHz-60kHz switching
- Square RBSOA
- Short circuit capability (8µs-10µs)
- Avalanche rated
- Positive thermal coefficient of  $V_{CE(sat)}$
- Ultra-fast anti-parallel diode (Sonic-FRD™)
- International standard and proprietary high voltage packages

### ADVANTAGES

- Hard-switching capability
- High power density
- Temperature stability of diode forward voltage  $V_f$
- Low gate drive requirements

### APPLICATIONS

- Battery chargers
- E-Bikes
- Lamp ballasts
- Power inverters
- Power Factor Correction (PFC) circuits
- Switch-mode power supplies
- Uninterruptible power supplies (UPS)
- Welding machines



Part Number	$V_{CES}$ (V)	$I_{CES}$ $T_c=25^\circ\text{C}$ (A)	$I_{C110}$ $T_c=110^\circ\text{C}$ (A)	$V_{CE(sat)}$ max $T_j=25^\circ\text{C}$ (V)	$t_{th}$ typ $T_j=150^\circ\text{C}$ (ns)	$E_{on}$ typ $T_j=150^\circ\text{C}$ (mJ)	$R_{th(jc)}$ max IGBT ( $^\circ\text{C}/\text{W}$ )	Configuration	Package Style
IXYP15N65C3D1M	650	16	8	2.5	42	0.24	3.1	Copacked (FRED)	TO-220 (overmolded)
IXYP10N65C3	650	30	10	2.5	38	0.15	0.94	Single	TO-220
IXYP15N65C3	650	38	15	2.5	42	0.24	0.75	Single	TO-220
IXYT30N65C3H1HV	650	60	30	2.7	30	0.41	0.55	Copacked (Sonic-FRD™)	TO-268HV
IXYH40N65C3H1	650	80	40	2.2	80	0.46	0.5	Copacked (Sonic-FRD™)	TO-247
IXYH50N65C3	650	130	50	2.1	42	0.56	0.25	Single	TO-247
IXYH75N65C3	650	170	75	2.3	58	1.3	0.2	Single	TO-247
IXYH100N65C3	650	200	100	2.3	77	1.2	0.18	Single	TO-247

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Efficiency Through Technology

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