Let A, B, C be events such that A and B are independent given C. If $P(A^cB^cC) = P(AB^cC^c) = P(A^cBC^c) = 1/8$, $P(AB^cC) = 1/6$, $P(AB) = 1/4$, and $P(ABC^c) = 0$, then what is $P(A^cBC)$?

(a) 3/16

(b) 3/8

(c) 1/16

(d) 1/32

(e) 3/32

(f) 1/8

(g) 1/4

(h) 5/8

(i) 5/32

(j) 1/24

(k) 5/24

(l) None of these